The author(s) shown below used Federal funds provided by the U.S. Department of Justice and prepared the following final report:

Document Title:	**Across the Universe? A Comparative Analysis of Violent Behavior and Radicalization Across Three Offender Types with Implications for Criminal Justice Training and Education**
Author(s):	**John G. Horgan, Ph.D., Paul Gill, Ph.D., Noemie Bouhana, Ph.D., James Silver, J.D., Ph.D., Emily Corner, MSc.**
Document No.:	**249937**
Date Received:	**June 2016**
Award Number:	**2013-ZA-BX-0002**

This report has not been published by the U.S. Department of Justice. To provide better customer service, NCJRS has made this federally funded grant report available electronically.

Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Across the Universe? A Comparative Analysis of Violent Behavior and Radicalization Across Three Offender Types with Implications for Criminal Justice Training and Education

Final Report

John G. Horgan, PhD Georgia State University
Paul Gill, PhD University College, London
Noemie Bouhana, PhD University College, London
James Silver, JD, PhD Worcester State University
Emily Corner, MSc University College, London

This project was supported by Award No. 2013-ZA-BX-0002, awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect those of the Department of Justice

ABOUT THE REPORT

ABOUT THE PROJECT

The content of this report was produced by John Horgan (Principal Investigator (PI)), Paul Gill (Co-PI), James Silver (Project Manager), Noemie Bouhana (Co-Investigator), and Emily Corner (Research Assistant). This research is supported by Award No. 2013-ZA-BX-0002, awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this document are those of the authors and do not necessarily reflect those of the Department of Justice.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

PROJECT TEAM

Research Team

John Horgan – Georgia State University
Paul Gill – University College London
James Silver – Worcester State University
Emily Corner – University College London
Noemie Bouhana – University College London

Data Collection Intern Team

University of Massachusetts Lowell
Andrew Valcourt , Autumn Calbria, Cassaundra Pellerin, Christian Nambu, Christopher Park, Cristiana Federico, Dijana Djuric, Gregory Johnson, Hank Harrington, Jackson Kellog, James Russell, Jennifer Rogers, Jessica Botero-Rua, Katie Kacmarek, Kelsie Ferris, Kevin Kearney, LaDonya Buchanan, Lindsey Viera, Matthew Febles, Melissa Mejia, Oti Achamfour, Remilekun Ogunfowara, Sean Rogers, Stephen Lidell, Tom Arsenault, Wesley Boudreau, Zachary Miliano

University College London
Amy Lafferty, Jordana Clark, Linh Le, Matteo Pezella, Sarika Dewan, Sophie Preisendoerfer

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

EXECUTIVE SUMMARY

- Lone actor terrorists (sometimes referred to as 'lone wolves') and mass murderers are more often than not assumed to be distinct, with little validity for comparison. Yet, both engage (or attempt to engage) in largely public and highly publicized acts of violence and often use similar weapons.

- Using a series of bivariate and multivariate statistical analyses, we compared demographic, psychological and offense-related behavioral variables across and between 71 lone actor terrorists and 115 solo mass murderers.

- Results indicate there is little to distinguish these offender types in terms of their socio-demographic profiles. However, their behaviors significantly differ with regards to (a) the degree to which they interact with co-conspirators (b) their antecedent event behaviors and (c) the degree to which they leak information prior to the attack.

- The fundamental distinction between the two groups – motivation – dictates different actuation points for violence. By definition, mass murderers lack an ideology and, thus, cannot be said to engage in the decision and search activity involving calculations based on current political and security climates that characterizes the incipiency of lone actor and solo actor terrorist attacks. In fact, the majority of mass murderers (57%, N = 65) are concerned with personal feelings of having been wronged by a specific person and ultimately murder (or attempt to murder) the person whom they hold responsible for that wrong. Other mass murderers (16%, N = 18) have a grievance against a category of persons and attack representatives of that group (the remainder were either spontaneous attacks and/or any grievance is unknown). Nor do mass murderers typically concern themselves with post-event activity and strategic analysis as do lone actor and solo actor terrorists. Unlike lone and solo actor terrorists, some mass murders appear to be spontaneous incidents, arising from the physical or emotional conflicts immediately prior to the attack and in which the individual does not exhibit any meaningful planning behaviors related to the attack. While the percentage of mass murders that occur in these circumstances (N = 17, 15%) is relatively small, the apparent

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

lack of predetermined intent and strategy sets at least these offenders apart from the terrorists in our dataset.

- Although still exploratory in nature, our examination of the 98 mass murderers in our dataset who do not engage in spontaneous violence reveals that they do *not* reliably follow the same "natural history from inception to completion" of the attack as lone actor and solo actor terrorists.

- As compared to the 1990-2005 period, the 2006-2013 period contains fewer offenders who (a) had previous military experience (b) made verbal statements to family/friends/wider audiences about their intent and beliefs (c) socialized face to face with members of a wider network (d) experienced being degraded or the target of an act of prejudice or unfairness (e) expressed a desire to hurt others (f) experienced a recent stressor. It is worth re-iterating that whilst prior military experience is often noted in media reports regarding the increase in mass murder events, the statistics suggest this factor only appears a third as much in the current era than it did in the 1990-2005 era which suggests that some so-called "risk factors" may have cohort-effects rather than having stable influences over time.

- One of the major implications of comparative analyses such as this could be to provide guidance or a framework to those tasked with responding to such phenomena. Given our counter-intuitive findings on the leakage of intent, this may be particularly relevant in terms of early disruption of plots. An understanding of this complexity and the multiplicity of potential factors could help inform how threat assessments of particular lone actors should be carried out. When we talk about 'threat', and the related concept of risk, we need to consider multiple, overlapping questions including issues related to identification of threats (e.g., threat of what precisely?), exposure (e.g., under what conditions are particular offences more likely?) and management (i.e., which interventions are likely to be effective in terms of mitigating either risk, broadly speaking, or a specific threat).

- The results suggest that both offenders are very similar in terms of their behaviors – this in turn suggests that similar threat and risk assessment

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

frameworks may be applicable to both types of offenders.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Table of Contents

ABOUT THE REPORT 2

PROJECT TEAM 3

EXECUTIVE SUMMARY 4

Table of Contents 7

1. Introduction 9
- **Data** 12

2. Comparing Lone Actor Terrorists and Solo Mass Murderers 16
- **Introduction** 16
- **Method** 16
- **Bivariate Analyses** 16
- **The Offenders** 18
  - Age 19
  - Gender 20
  - Education, Employment & Relationship Status 21
- **Previous Criminal History** 22
- **Other Distal Factors** 23
- **Proximal Factors** 24
- **Attack Signaling** 26
- **Regression Analysis** 29
- **Clustering Behaviors** 32
- **Conclusion** 34

3. Rethinking Our Conceptualizations 36

4. 'Risk Factors' and Lone Actor Violent Events: The Problems of Low Base Rates & Long Observational Periods 45
- **Do 'Risk Factors' Change Over Time? Learning from High-Likelihood, Low-Impact Crimes** 46
- **Method** 48
- **Results** 48
- **Conclusion** 51

5. Routine Activity Case Studies 53
- **Lone actor Terrorists** 55
  - Mohammed Reza Taheri-Azar 55
  - Timothy McVeigh 58
  - Floyd Lee Corkins 65
  - Abdulhakim Mujahid Muhammad 67
  - Eric Rudolph 70
  - Scripting Lone actor Terrorist Events 75
- **Solo Terrorists** 75
  - Faisal Shahzad 75
  - Umar Farouk Abdulmutallab 81
  - Scripting Solo Terrorist Events 88
- **Mass Murderers** 89
  - Kyle Huff 90

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Michael McDermott 94
Jeffrey Weise 97
Robert Hawkins 100
Gang Lu 104
Scripting Mass Murder Events 107

6. Conclusion 111

References 116

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

1. Introduction

Current efforts to analyze violent extremism are hampered both by recurring conceptual errors and limited empirical support. To date, attempts to understand radicalization and/or terrorist motivation have largely tended toward generalist explanations that often border on explanatory fictions (Horgan, 2014). Furthermore, such explanations, be they theoretical models or descriptive analyses of large-n datasets, tend to treat group members as homogenous. Other analyses do distinguish offender types (e.g. lone wolf vs. al Qaeda-member) but these comparisons tend to be based on single case studies and devoid of crime prevention paradigms (for example, McCauley, Moskalenko and Van Son, 2013).

In the absence of useful comparison or, additionally, control groups (e.g. Merari, 2010), even unashamedly empirical analyses can at best offer largely descriptive (and as a result, partial) account of violent extremism. As LaFree (2013:60) notes, there has been a nascent research trend towards the development of "specialized data sets on specific subsets of terrorism cases" which represents the third major development in the empirical study of terrorism.[1]

This project report seeks to contribute to this trend by engaging in an inter-disciplinary and data-driven approach to understanding lone actor terrorists[2], and solo mass murderer attackers[3]. Instead of using the 'terrorist' or 'offender' as the dependent variable under investigation, we feel it may be more instructive to disaggregate and compare socio-demographic, psychological and behavioral features across and between these offender types.

The discipline of criminology has largely progressed through embracing disaggregated methods and this project report is amongst the first to apply such

[1] The first being the development of international databases of terrorist attacks. The second being the collection of domestic international attacks.
[2] Defined as an individual who engages in ideologically-inspired violence in support of a broader group but absent of ties to or material support from that group.
[3] Defined as an individual who kills four or more people in one event over a relatively short period of time (within 24 hours). We exclude incidents that are state sponsored, gang/organized crime related, or solely domestic in nature.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

methods to the study of terrorist and or/extremist outcomes. We are aware of very little prior research that empirically compares terrorists and criminals in a rigorous manner. Cairns (1987) cites the works of Elliot and Lockhart (1980) and Curran (1984). The Elliot and Lockhart study compared forty juvenile terrorist offenders in Northern Ireland with a matched group of juvenile non-terrorist criminals. The terrorist sample was older, more intelligent, more socially outgoing, less likely to be truant from school or referred to a child psychiatrist. The Curran study focused upon a similar sample but required participants to self-report on 155 statements from the Jesness Inventory. The non-terrorist offenders scored higher on measures of aggression, autism, toughness and sensation seeking. Lyons and Harbinson (1986) compared 47 terrorists convicted of murder with 59 non-terrorist murderers. The non-terrorists were significantly more likely to be under the influence of alcohol during the offense and have a family history of personality disorder. Lankford (2012) compared the self-harming motivations and behaviors of 81 suicide terrorists and rampage, workplace and school shooters in the U.S. from 1990 to 2010, finding only superficial differences across the groups.

Our report compares offender types whose violence appears similar yet whose motivational structure differs. We propose that there may be significant implications for improving investigative practice (at a variety of levels and stages) by understanding the relevant distinctions between offender types. In particular, we are interested in the differences between lone actor terrorists and solo mass murderer offenders. Both engage (or attempt to engage) in largely public and highly publicized acts of violence and often use similar weapons. So while their outcomes often share multiple features, we ask if the trajectories into violence followed by the respective actors may be equally similar.

Understanding the comparative nature of the development of extreme behavior with violent outcomes is important. From a disruption perspective, different kinds of guidance would effectively be tailored for offender-specific intervention policies. For example, what works for understanding and responding to a mass murderer may not necessarily be relevant for the management of a lone actor terrorist. Their behaviors, routines and proximity to other actors may differ substantially and as a result, give rise to different kinds of responses at whatever stage of the investigative process we

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

are focused, be it prevention or disruption. From a criminal justice perspective, a greater understanding of offender types may help with targeted treatment policies and risk assessments (Tracy and Kempf-Leonard, 1996). From a research perspective, it will ultimately help with our understanding of who takes part in particular violent offenses, the nature of their involvement with others and ultimately how they desist or disengage from violent activities (Horgan, 2009). Investigating whether particular variables more closely correlate with particular offender types also concerns the very nature of how we theorize about terrorist involvement and whether general models of 'radicalization' or 'pathways' into terrorism are appropriate, It also highlights whether research on pathways into violence should be tailored for particular manifestations of terrorist or violent activity. Existing approaches therefore may miss the subtle psychological, behavioral, socio-demographic or organizational factors that may explain how and why some individuals are more likely to take part in particular violent activities than others.

Chapter two presents the results of a series of statistical tests to distinguish the differences between lone actor terrorists and solo mass murderers in terms of socio-demographic characteristics and behavioral traits prior and after their violent attack. The results highlight that whilst some differences are apparent, their behaviors and characteristics are similar.

Chapter three builds upon these findings and asks whether conceptualizing these types of offenders as an either/or classification is valid. It then quantifies and plots each offender according to the dimensional models previously theorized by Borum et al. (2011).

Chapter four focuses on the conceptual and methodological problem of low base rates and long observational periods.

Chapter five outlines 12 case studies, and utilizes crime scripting approaches to offer differing conceptual models of the violent radicalization and attack planning process across lone actor terrorists, solo terrorists and solo mass murderers.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Data

We used open source data collection methods to develop a unique dataset that categorizes the socio-demographic, developmental antecedent attack, attack preparation and commission properties of 71 lone actor terrorists and 115 mass murderers. This addresses the paucity of data that has long been noted in the study of terrorists and mass murderers (Schmid & Jongman, 1988; Silke, 2001, 2004, 2013). To reduce bias in the sample, we limit our focus to United States-based offenders. Importantly, given the fact that lone actor terrorist attacks are still 'black-swan' type events (i.e., rare), the level of available behavioral data is consequently far higher than that of group-based offenders who operate on behalf of a prolific group. From experience of previous data-collection endeavors (e.g. Asal, et al. 2013; Gill and Horgan, 2013; Gill et al. 2014; Corner and Gill, 2015), it is very difficult to obtain much more than the very basic socio-demographic information of such group offenders from open sources (see Gill, 2015 for a longer discussion). Only two solo terrorists were identified. For the statistical comparative analyses, these two individuals are subsumed into the category of lone actor terrorist. We treat them as different offender types in the crime scripting analyses.

Despite the palpable rise in public anxiety following events such as Columbine, Aurora, and Sandy Hook, the fact remains that mass murder is a rare event in the U.S compared to homicides with fewer fatalities. From 1976 to 2000, the percentage of murders that involved more than one victim ranged from 3% to 4% of homicides per year (Fox & Zawitz, 2003). A review of the FBI's Supplementary Homicide Reports from 2000 to 2012 shows that the number of mass murders (four or more victims) was approximately *one-tenth of one percent* of all murders (excluding the 9/11 deaths). Nevertheless, perhaps because it occurs so infrequently but is so disturbing, there are few crimes that receive more news coverage than mass murder (Duwe, 2000).

Prior to data collection, academic literature on lone actor terrorism was examined and from there an actor dictionary was built. This actor dictionary encompassed a list of offenders fitting the above criteria. Further names were also sourced through tailored search strings developed and applied to the LexisNexis "All English News" option. More individuals were also identified through the Global Terrorism Database

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

developed by the National Consortium for the Study of Terrorism and Responses to Terrorism (START) and lists of those convicted of terrorism-related offences in the United Kingdom and the United States. We also examined the academic literature on mass murderers and built an actor dictionary, producing a list of names that fit our criteria (see below). Next, we identified additional offenders through databases created by *Mother Jones*, *USA Today* and Mayors Against Illegal Guns. Finally, we conducted searches on Lexis/Nexis using specific terms and searched the Federal Bureau of Investigation's Uniform Crime Reports for each year of the relevant time period to find other offenders who meet our criteria. Our final sample comprises 115 mass murderers.

A pervasive problem with research on mass murder is the shifting definition of what exactly is a mass murder. Some criteria that have been considered include offender motive (Hempel, Meloy & Richards, 1999; Rappaport, 1998), the type of weapon used (Hempel et al., 1999) and the number of wounded (Dietz, 1986). Generally, these criteria are not relied upon in the literature, perhaps because they appear to be arbitrary. There is, however, general agreement that a mass murder involves multiple victims killed at one (or multiple but geographically close) locations over a relatively short period of time (Dietz, 1986: Holmes & Holmes, 1992; Hempel et al., 1999; Fox & Levin, 1998, 2003; Meloy & Felthous, 2004).

Nevertheless, there is less agreement about the minimum number of victims required to define a murder event as "mass". Some researchers use a threshold of two victims (Palermo & Ross, 1999), others use three (Dietz, 1986; Holmes & Holmes, 1992, 1994, 2001; Peete, Padget & York, 1997), and still others use four (Duwe, 2000; Fox & Levin, 1998, 2003). The definition used in this study is *four or more victims (not including the offender)* for the following reasons. First, four or more victims (not including the offender) is the demarcation line accepted by the Federal Bureau of Investigation in its 2005 report: *Serial Murder: Multi-Disciplinary Perspectives for Investigators*, released after a meeting of experts in various fields relevant to the study of multiple homicides. This definition of mass murder as involving four or more fatalities was the result of considered reflection by the leading academics (criminologists, psychologists, forensic psychiatrists), and practitioners (state and federal law enforcement officials and

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

prosecutors) brought together by the FBI for the specific purpose of clarifying issues related to serial and mass murder.

Second, in studies such as the present one where data is collected via open source research methods, the number of victims is an important determinant of media coverage of multiple murder events. Research has suggested that media attention given to any mass murder is affected by certain factors, and high profile mass murders are significantly more likely to involve larger numbers of killed and wounded, stranger victims, public locations, assault weapons and workplace violence (Duwe, 2000, 2005).

Third, practical considerations necessitated a threshold of four victims instead of three. A review of the FBI's Supplementary Homicide Reports from 1976 to 1999 reveals that there are over three times as many cases of three victim homicides as there are four victim homicides (Duwe, 2004). Employing a mass murder definition of three or more victims would have necessitated reducing the time span of the study from approximately 24 years, to at most eight years. While that approach may be useful in future research, this study opts for the use of a greater time span which also matched the time span utilized in the previous lone actor terrorist data collection endeavors.

To facilitate comparison to lone actor terrorists who, by definition, act alone and without direction or support, the sample includes only mass murderers who acted alone. In keeping with that same principle, the study also excludes state-sponsored as well as gang and organized crime related incidents. Also, attacks that are solely domestic are excluded, as these are frequently treated separately in the literature and appear to have a distinct genesis (Aldridge & Brown, 2003; Campbell, Glass, Sharps, Laughon, & Bloom, 2007; Lankford, 2012).

The codebook used in this project was developed based on a review of literature on individuals who commit a wide range of violent and non-violent crimes, are victimized, and/or engage in high-risk behaviours as well as a review of other existing codebooks used in the construction of terrorism-related databases. The variables included in the codebook span socio-demographic information (e.g., age, gender, occupation, family characteristics, relationship status, occupation, employment, etc.), antecedent event behaviours (e.g., aspects of the individual's behaviours towards

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

others and within their day-to-day routines), event specific behaviours (e.g., attack methods, who was targeted) and post-event behaviours and experiences (e.g., claims of responsibility, arrest/conviction details, etc.). Data were collected on demographic and background characteristics and antecedent event behaviours by examining and coding information contained in open source news reports, sworn affidavits and when possible, openly available first-hand accounts. The vast majority of sources came from tailored LexisNexis searches. Information was gleaned from relevant documents across online public record depositories such as documentcloud.org, biographies of a number of lone actors and all available scholarly articles. For a definition of different variables, see Gill et. al (2014).

Three independent coders coded each observation separately. After an observation was coded, the results were reconciled in two stages (coder A with coder B, and then coders A+B with C). In cases when three coders could not agree on particular variables, differences were resolved by a senior member of the research team based on an examination of the original sources that the coders relied upon to make their assessments. Such decisions factored in the comparative reliability and quality of the sources (e.g., reports that cover trial proceedings vs. reports issued in the immediate aftermath of the event) and the sources cited in the report.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

2. Comparing Lone Actor Terrorists and Solo Mass Murderers

Introduction

This chapter addresses whether similarities and/or dissimilarities are observable across lone actor terrorists and solo mass murderers and explores the implications for law-enforcement. Our expectation is that while the socio-demographic profiles will be similar between the two offender types, it is in the behavior and attack planning where many differences will emerge.

Method

The results below are based upon a series of bivariate and multivariate analyses. The full significant results from the bivariate analyses (chi-square, Fisher's exact tests) are outlined in the next section. For the statistical analyses that follow, where possible, we do report or distinguish between missing data and 'no' answers, but it should be kept in mind that the likely result is that 'no' answers are substantially undercounted in the analysis. Unless otherwise stated, each of the figures reported below are of the whole sub-samples (n=71 lone actor terrorists and 115 mass murderers). There is precedent for this in previous research on attempted assassinations of public figures, fatal school shootings and targeted violence affecting institutions of higher education (Fein and Vossekuil, 1999; Vossekuil et al, 2002; Drysdale et al, 2010).

Bivariate Analyses

Table 2.1 outlines the behaviors where there is a significant difference between the lone actor terrorists (LA) and the solo mass murderers (MM). The results are split into three types of variables: group-related activities, antecedent attack behaviors and leakage-related behaviors.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Table 2.1: Results from the Bivariate Analyses

						95% CI	
Variable	X^2	LA %	MM %	p	Odds Ratio	Lower	Upper
Group-Related Activities							
Tried to Recruit Others	20.822	23.9	2.6	0.000	0.085	0.024	0.303
Interacted Face to Face with Members of a Wider Network	35.690	43.7	7.0	0.000	0.096	0.041	0.228
Interacted Virtually with Members of a Wider Network	20.822	23.9	2.6	0.000	0.085	0.024	0.303
Letters/Public Statements Prior to Attack	46.045	59.2	12.2	0.000	0.096	0.046	0.199
Recent Joined Wider Movement	22.458	32.4	6.1	0.000	0.135	0.054	0.337
Antecedent Attack Behaviors							
University Experience	8.334	43.7	23.5	0.004	0.396	0.209	0.749
Military Experience	4.855	32.4	18.3	0.028	0.466	0.235	0.926
Military at Incident	Fisher's	8.5	0.9	0.008	0.095	0.011	0.807
Combat Experience	Fisher's	11.3	1.7	0.014			
Criminal Convictions	4.028	57.5	42.6	0.045	0.543	0.299	0.988
Tipping Point	6.006	62.0	43.5	0.014	0.472	0.258	0.864
Changed Address	14.238	67.6	39.1	0.000	0.308	0.165	0.574
Live Alone	7.561	43.7	24.3	0.006	0.415	0.220	0.782
Substance Abuse	5.785	26.8	44.3	0.016	2.181	1.148	4.142
Socially Isolated	11.620	50.7	26.1	0.001	0.343	0.184	0.641
Dry Runs	31.568	33.8	3.5	0.000	0.071	0.023	0.215
Degraded	10.206	16.9	39.1	0.001	3.161	1.531	6.525
Ignored/Treated Poorly	4.742	14.1	27.8	0.029	2.352	1.075	5.147
Helpless Victim	3.298	11.3	21.7	0.069	2.188	0.927	5.163
Problems with Personal Relationship	21.506	26.8	61.7	0.000	4.416	2.314	8.427
Escalating Anger	3.875	40.8	27.0	0.049	0.534	0.285	1.001
Recent Stress	5.126	39.4	56.5	0.024	1.996	1.093	3.645
Chronic Stress	22.575	26.8	62.6	0.000	4.583	2.399	8.753
History with Event Location	44.994	29.6	79.1	0.000	9.028	4.575	17.815
Stockpile	7.285	52.1	32.2	0.007	0.436	0.237	0.801
Leakage Related Behaviors							
Verbalize Intent to Family/Friends	13.984	59.2	31.3	0.000	0.315	0.170	0.582
Verbalize Intent to Wider Audience	6.021	49.3	31.3	0.014	0.469	0.255	0.862
Aware Grievance	21.241	80.3	46.1	0.000	0.210	0.105	0.419
Desire to Hurt Others	7.995	69.0	47.8	0.005	0.412	0.221	0.767
Others Involved Procured Weaponry	8.134	21.1	7.0	0.004	0.279	0.112	0.698
Others Aware of Planning	8.719	36.6	17.4	0.003	0.364	0.184	0.721

In terms of group-related activities, the results indicate that lone actor terrorists were significantly more likely to try to recruit others, interact face-to-face with members of a wider network, virtually interact with members of a wider network, produce letters

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

and/or public statements prior to the attack and recently join a wider movement.

In terms of antecedent attack behaviors, lone actor terrorists were significantly more likely to have university experience, military experience, combat experience, criminal convictions, experience a tipping point in their pathway to violent extremism, change address prior to their attack, live alone, be socially isolated, engage in dry runs, demonstrate that their anger is escalating and possess a stockpile of weapons. Solo mass murderers, on the other hand, were significantly more likely to have a history of substance abuse, experience being degraded or treated poorly by others in the build-up to their violent event, experience being a helpless victim, have problems with personal relationships, experience both recent and chronic stress and have a history with the event location.

In terms of leakage related behaviors, lone actor terrorists were significantly more likely to verbalize intent to commit violence to friends/family/wider audiences, have others aware of their grievance, express a desire to hurt others, have others involved in procuring weaponry and have others aware of their attack planning. This has very important implications for detection prior to the event itself. Without leaking intent, it increases the chances that intelligence or policing services will be unaware of the plot (supposing the recipient of the leak reports it to the relevant authorities). The difference in prevalence highlights the increased difficulty in detecting mass murders in advance of time compared to lone actor terrorist offences and this should be reflected in any threat management protocols going forward. The following sections go into these findings in greater detail. Later, we conduct a series of regressions based on these variable types.

The Offenders

Now we turn towards comparing both sets of offenders. The aim here is not to create an offender 'profile'. Given the broad spectrum of motivations and ideologies across a low base rate of lone actor terrorists (Gill, 2015; Gill, Horgan and Deckert, 2014) such an endeavor is conceptually and empirically problematic and also holds little practical relevance for investigative purposes. Instead, our goal is to provide better insight into what variables we see universally across all crimes and terrorist types, and

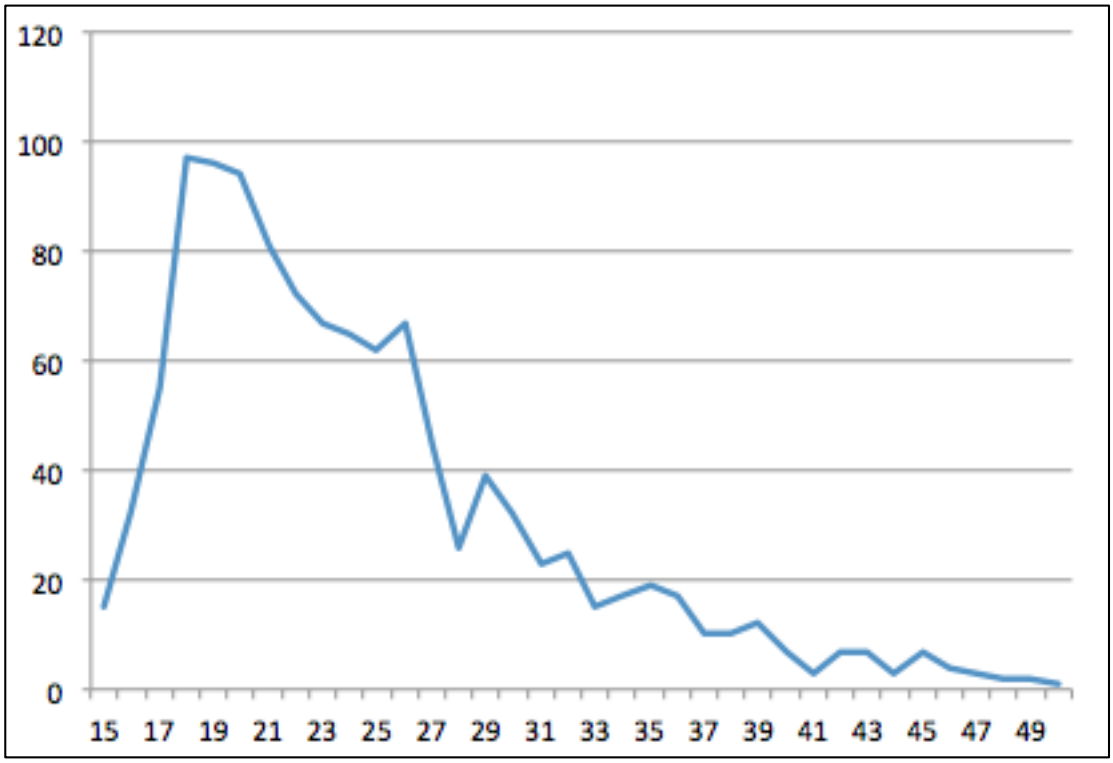
This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

what offender characteristics appear to be particularly prominent within one sample compared to the other.

Age

Within criminology, there is a long established relationship between age and offending. A number of studies (across a wide range of crimes) illustrate that as individuals become older, they also become less likely first time offenders. The chances of becoming a first time offender "ascends rapidly during adolescence, peaks in early adulthood and falls thereafter" (Stolzenberg and D'Alessio, 2008:66). Hirschi and Gottfredson (1983:552) refer to this relationship as "one of the brute facts of criminology" (Hirschi and Gottfredson, 1983:552). Data from Gill and Horgan's (2013) study of 1240 Provisional Irish Republican Army members demonstrates a similar relationship (see figure 2.1). Here, the peak first-time offending years were between 17 and 21, followed by a slow decline until the age of 27 where there is a precipitous fall followed by a long slow decline.

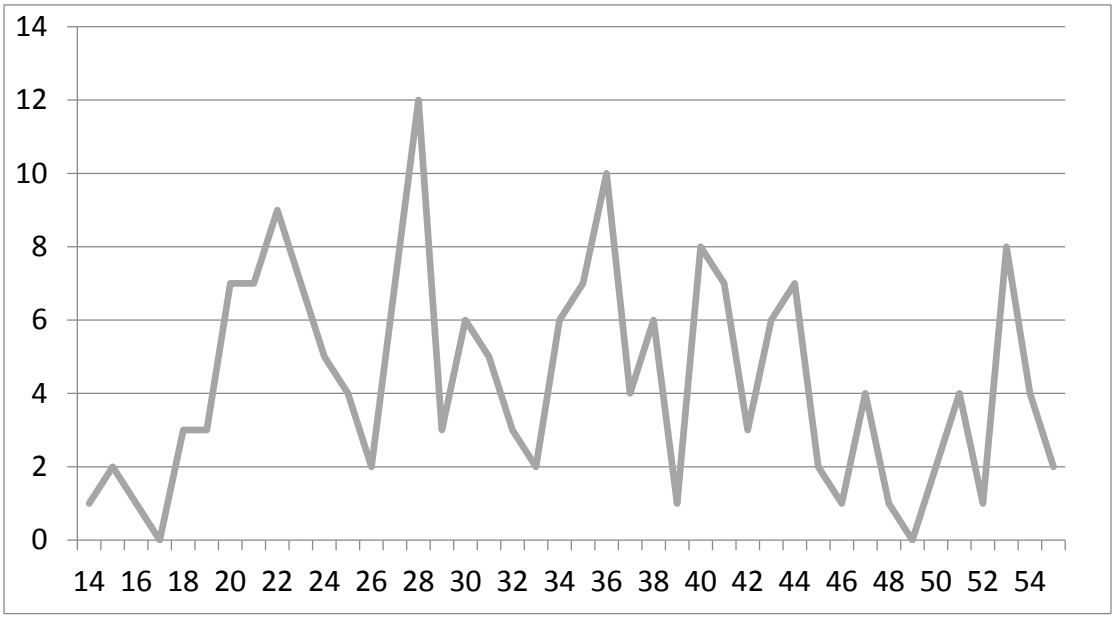
Figure 2.1 – Age Crime Curve of 1240 PIRA Members



This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Both the lone actor terrorist sample and the mass murderer offender sample do not reflect "one of the brute facts of criminology" (Hirschi and Gottfredson, 1983:552). There was no significant difference between the two sub-samples and the average age of the whole sample was 34 years. Figure 2.2 illustrates no curvilinear relationship, with peak offending occurring in the early 20s, late 20s and mid-30s. The average age appears much higher than terrorist group-based studies previously highlighted. Florez-Morris' (2007) sample of Colombian terrorists (across three distinct groups, CRS, M-19 and the EPL) averaged 20 years of age. Both Gill and Horgan's (2013) sample of Provisional IRA members and Sageman's (2004) global jihadist sample averaged 25 years of age.

Figure 2.2 – Age Crime Curve of Lone Actor Terrorists and Mass Murderers Combined



Gender

Males heavily dominate both offence types. Only three females made the mass murderer offender dataset: in October 2006, Valerie Moore (by then an already convicted and released murderer) killed 12 and injured a further 31 after intentionally setting fire to a mattress outside the hotel room of an individual with whom she had recently argued. Also in 2006, Jennifer San Marco returned to her former workplace

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

at a Postal Service office and shot and killed six before turning the gun on herself. During a February 2014 tribal meeting to discuss her possible eviction, Cherie Lash Rhoades fired from two handguns and wielded a butcher knife, killing four. Rachelle "Shelley" Shannon was the only female who made the lone actor terrorist dataset. She shot Dr. George Tiller (who survived but was later assassinated by lone actor Scott Roeder) outside his abortion clinic in Kansas in 1993.

These outliers are similarly reflected in gender representation within terrorist groups such as the Provisional Irish Republican Army (4.9%) and ETA (6.4%) (Gill and Horgan, 2013; Reinares, 2004). The wider crime literature also shows that males are also far more likely to engage in a wide range of violent and illegal behaviors (see Gill, 2015 for a full explanation). Indeed, males account for 93.2% of all sentenced prisoners in state or federal prisons according to a 2010 U.S. Department of Justice report (Guerine, Harrison, & Sabol, 2011). In effect, the relatively low preponderance of females in the sample is nothing extraordinary.

Education, Employment & Relationship Status

Of those lone actor terrorists with available data (n=48), two-thirds took part in some form of university education with 21% possessing an undergraduate degree as their highest form of educational attainment, an additional 15% holding a masters and 4% holding an accredited Doctoral degree. Only 10% dropped out of secondary education. Generally speaking, the mean education level for this offender sample is impressive. The mass murderers were significantly less educated. Only 24% of the sample had some experience of university education, with 11% finishing an undergraduate degree, and 4% finishing some form of graduate degree.

However, the educational success of the lone actor terrorists did not translate into direct success in the job market. 38% were unemployed. 21% worked in the service or administrative sectors. Only 8% were active professionals. The general aggregate picture from the lone actor terrorist cohort is that of a well-educated sample but one who largely failed to translate this to real-world success. Despite the lower education attainment, only 28% of the mass murder offenders were unemployed, 33% worked in the service or administrative sectors and 5% were professionals.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

There was no significant difference between the samples in terms of relationship status. A high percentage of both lone actors and mass murderers were single (37% and 43% respectively), smaller numbers were married (19% and 17%) or divorced (16% and 13%).

Previous Criminal History

In 2007, Jason Roach published a research article called 'Those who do big bad things also usually do little bad things'. Roach promotes the concept of 'self-selection' to catch serious offenders. The basic idea is that serious offenders are often identified and captured by police after the commission of a lesser offence: "serious offenders are often crime versatile, committing an array of different crimes, including minor as well as serious offences. People who do big bad things, will not cavil at doing little bad things" (Roach, 2007:67). It should be no surprise therefore that much academic work on volume crime shows that a large predictor of future engagement with criminal and illicit behaviors is whether the individual has a previous history of criminal or illicit activities. Previous research has shown that offenders with prior convictions (including child molestation, robbery, or multiple probation sentences) are more likely to engage in a spree of homicidal offending (DeLisi, Hochstetler, Scherer, Purhmann, & Berg, 2008). Fein and Vossekuil's (1999) study of individuals who took part in or attempted to take part in an assassination of a public figure illustrated that 56% of the sample had one or more arrests for a non-violent offense while 20% had one or more arrests for a violent offense.

When we turn to the lone actor terrorist sample, we find similarly high figures. 58% had a previous criminal conviction. Of this sub-sample, 59% served time in prison indicating the seriousness and/or prolific nature of their offending. The corresponding figure for previous convictions amongst the mass murderers was lower, at 43%. However, a higher percentage of these individuals (67%) served time for their offence (suggesting they are more serious previous offenders). Offences across both sub-samples included non-violent activism, vehicle theft, counterfeiting, disorderly conduct, robbery, drink driving, concealed weapons conviction, counterfeiting, felony drugs convictions, assault, aggravated harassment, extortion, tax fraud, sexual assault,

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

lewd conduct, arson, kidnapping, child pornography possession, firearms offences, grand larceny, and bank robbery. We therefore see a very wide range of illegal activities and certainly no concentration of one crime type that we can identify as an escalatory "trigger" for subsequent behavior into lone actor terrorism or mass murder.

Other Distal Factors

There are a number of other behaviors logged within both datasets that provide an understanding of the offender's behavioral background. These are listed in Table 2. The results highlight the fact that lone actor terrorists were significantly more likely to be socially isolated, living alone at the time of their offense, and to have a history of military and combat experience. Mass murderers on the other hand were significantly more likely to have experienced long-term stress. Examples of this include: academic frustration stemming from learning disorders; difficulty maintaining employment and failure in business ventures; disabling injuries from automobile and work accidents; a range of mental health issues including depression, bi-polar disorder and post-traumatic stress disorder; an inability to establish appropriate social relationships; long-lasting discord in marriages and romantic relationships; and even being the main suspect in a double murder for over six years.

Table 2.2 Prevalence of Distal Factors

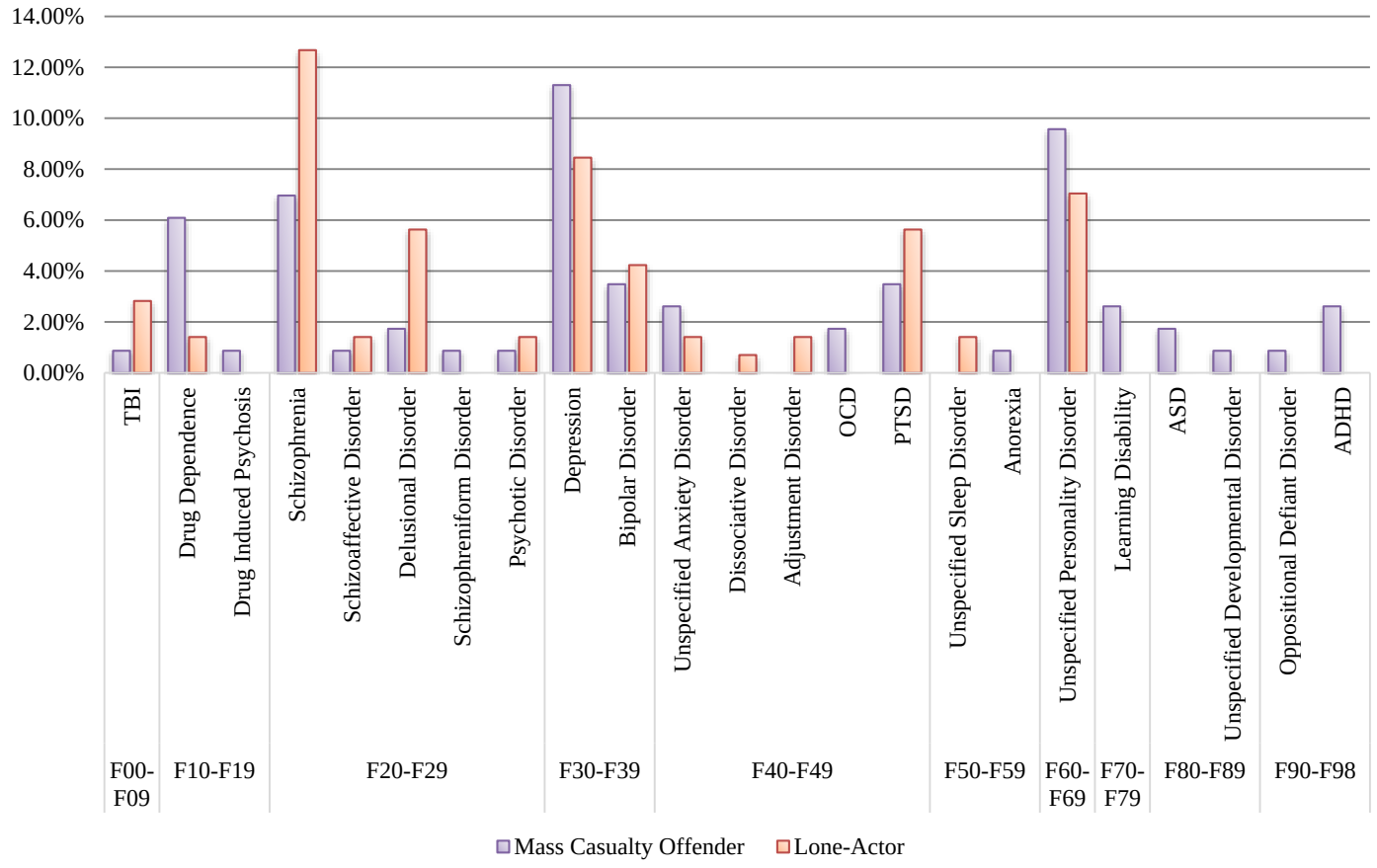
Variable	**Lone Actor Terrorists**	**Mass Murderers**
Socially Isolated	51%***	26%
History of Mental Illness	39%	48%
Lived Alone at Time of Event	44%***	24%
Experience of Long-Term Stress	27%	63%***
History of Substance Abuse	27%	44%**
Military Experience	32%**	18%
Combat Experience	11%***	2%

*** = p < .001, ** = p <.01, * = p < .05

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Although there was no significant difference in terms of mental illness prevalence, Corner, Gill and Mason (2015) illustrated that the nature of the disorders themselves differed across actor types. Figure 2.3 presents these results. Lone actors show higher prevalence of psychotic disorders (those within the F20-F29 bracket of the ICD-10). Whereas mass murderers demonstrate higher prevalence of substance related disorders, major depressive disorder, personality disorders, disorders related to psychological development (F70-F79, F80-F89), and behavioral disorders with juvenile onset (F90-F98).

Figure 2.3: Mental Disorder Prevalence across Actor Types



Proximal Factors

This section provides an overview of the prevalence of behaviors the individual engaged in very near to the terrorist event or planned event. None of these behaviors

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

are attack-related specifically, but again provide a more holistic view of the immediate life-situation various actors found themselves in just prior to planning their attack. The results again highlight the importance of short-term situational risk factors. Consistently across a number of variables, it appears that these short-term risk factors appear most commonly for mass murderers, particularly in the 6-month time frame prior to their eventual attack.

Table 2.3. Prevalence of Proximal Behaviors

Variable	Occurred within 2 Years	Occurred within 1 Year	Occurred within 6 Months
	LA = Lone Actor MM = Mass Murderer	LA = Lone Actor MM = Mass Murderer	LA = Lone Actor MM = Mass Murderer
Religious Beliefs Noticeably Intensified	LA - 6% MM – 1% *	LA – 4% MM – 1%	LA – 3% MM – 1%
Ideological Beliefs Noticeably Intensified	LA – 35% MM – 1.7% ***	LA – 28% MM – 1.7% ***	LA – 18% MM – 1% ***
Recently Unemployed	LA –28% MM – 30%	LA – 22% MM – 28%	LA – 13% MM – 24%
Experienced Being Degraded	LA - 13% MM – 31% **	LA - 11% MM – 24% *	LA - 6% MM – 17% *
Target of a Perceived Act of Prejudice	LA - 17% MM – 24%	LA - 14% MM – 17%	LA - 6% MM – 10%
Problems with Personal Relationships	LA - 17% MM – 40% **	LA - 13% MM – 37% ***	LA - 7% MM – 25% **

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Financial Problems	LA - 24% MM – 24%	LA - 20% MM – 24%	LA - 13% MM – 19%
Elevated Level of Stress	LA - 32% MM – 51% *	LA - 27% MM – 45% *	LA - 17% MM – 36% **

*** = p < .001, ** = p <.01, * = p < .05

Attack Signaling

One of the most surprising behavioral trends was the extent to which the sample tended to leak information to others regarding their attack plan (See Table 4). Studies of similar actors have however found similar results. For example, Meloy et al.'s (2001) study of adolescent mass murderers in North America illustrated that 44% of the sample discussed the act of murder with at least one other person prior to the event itself. Also, 58% of the offenders in their study made threatening statements alluding to mass murder prior to the event and this was usually to a third-party audience. In 81% of Vossekuil et al.'s (2002) sample of U.S.-based school shooters, at least one other individual had known of the offender's intentions or specific plans for the school attack. In 59% of the cases, more than one non-attack related person had prior knowledge. Unlike Meloy et al.'s study, there was a lower rate of school shooters (17%) who provided specific pre-event warnings. Vossekuil et al. (2002:26) also found that although most of the offenses were committed by individuals, in 44% of the cases the solo offender was "influenced by other individuals in deciding to mount an attack, dared or encouraged by others to attack, or both". In some of these cases, others aided the solo offender in acquiring the weapon and/or ammunition. Finally, Fein and Vossekuil (1999) studied individuals who committed or attempted to commit assassinations of public figures in the United States. They illustrate that although specific pre-attack warnings are a rare-event, often others close to the offender were either aware of his/her interest in assassinations (44%), history of verbal/written communications about the eventual target (77%) or history of indirect, conditional or direct threats concerning the eventual target (63%).

The leaking of intent is therefore a key indicator to keep in mind with regards to developing a strategy to counter lone actor terrorism. However, this information

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

cannot be acted upon if the recipient of the leaked information does not communicate with the relevant authorities. There could be clear barriers to this information being passed on. For example, Borum (2013:108) posits that "those with kinship bonds may not approve at all of the attacker's intent, but they may feel restrained from acting because of love and loyalty or concern about the consequences". Borum further outlines that research on such reporting mechanisms shows that factors such as the presence of multiple reporting channels, anonymity, accessibility, safety and credibility are key to successful transmission of this information. Of course, not all of the instances in which information is received about verbalized intent are viable threats or risks so instead of acting straight away, the logical next step is to engage in a risk assessment and look at the rest of the individual's behaviors with regard to their situation, capability, motivation and opportunity to act. The results in table 4 highlight the fact that lone actor terrorists engage in significantly more 'leaky' behaviors and this could be for a number of reasons. Lone actor terrorists may be less likely at the outset to actually want to be alone in the attack. This is evidenced in the contrasting findings with regard to their likelihood of trying to recruit others. Political grievances also may tend to have a wider audience than the deeply personal and idiosyncratic grievances of mass murderers. Hence, the opportunities to interact and leak intent may also be strengthened. Another possible reason may be that lone actors may be more likely to attack high profile targets which may lead to a longer attack planning and hence more time to leak intent. This lack of planning on a subset of the mass murderer sample may be indicated by the large number that consumed alcohol or drugs prior to their attack. Finally, it may be because of the 'lone actor terrorist dilemma' depicted by Gill (2015). Without leaking intent prior to the attack, the lone actor terrorist's actions may be depicted as the actions of a mad man rather than that of a rational terrorist. Without the ideological drivers being reported, the act cannot be an act of terrorism because it is 'message-less' for all intents and purposes.

Table 2.4. Leakage & Group-Related Activities

Behavior	Lone Actor Terrorist	Mass Murderer
Other People Aware of the Individual's Grievance	80%***	46%

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Other People Aware of Individual's Extremist Ideology	77%	N/A
Made Verbal Statements to Friends/Family about Intent or Belief	59%***	31%
Interacted Face to Face with Members of a Wider Network	44%***	7%
At Least One Other Knew of the Individual's Research/Planning/Prep for an Attack	37%**	17%
Interacted Virtually with Members of a Wider Network	24%***	3%
Received Help in Procuring Weaponry	21%***	7%
Produced Public Statements Prior to the Event	59%***	12%
Made a Pre-Event Warning	26%	19%
Sought Legitimization from Epistemic Authority Figures	10%***	0%
Learnt Through Virtual Sources	29%***	10%
Tried to Recruit Others	24%***	3%

*** = p < .001, ** = p <.01, * = p < .05

Finally, there are additional event related behaviors that produced interesting results. The mass murderer sample were significantly more likely to have familiarity of the attack location (79% vs. 30%) and this may account for why the lone actor terrorists were significantly more likely to engage in dry runs (34% vs. 4%). The mass murderers were also significantly more likely to consume drugs or alcohol just prior to the attack (20% vs. 4%).

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Regression Analysis

None of the above behaviors occur in isolation. The development of any of these individuals' behavior typically involves the crystallization in time and space of a number of factors. Because of this, we conducted a series of logistic regression analyses.[4]

The variables from Table 2.1 were entered into a series of regression analyses. Tables 2.5-2.7 outline these results. Model 1 analyses group-related behaviors using a logistic regression (mass murderers =1) (see table 5). The analysis showed that in combination, the independent variables significantly impacted upon whether the individual was a lone actor terrorist or a solo mass murderer ($X^2(5)=68.510$ $p<0.001$). Individuals who carry out both face to face and virtual interactions with co-ideologues, and those who produced letters after the event were significantly more likely to be lone actor terrorists, These results are not unexpected given the ideological motivations of lone actor terrorists versus the personal motivations of mass murderers, but do underscore ways in which these different impulses to action may affect offenders' willingness and/or need to interact with others both before and after the attack.

Table 2.5 – Logistic Regression Analysis of Group Related Behaviors

Variable	B(SE)	Sig.	Lower	Exp(B)	Upper
Recently Joined a Wider Group	-.431(.739)	.559	.153	.650	2.763
Interacted Face to Face with Members of a Wider Network	-1.403(.665)	.035*	.067	.246	.906
Interacted Virtually with Members of a Wider Network	-1.848(.740)	.013*	.037	.158	.672
Tried to Recruit Others	-1.381(.774)	.074	.055	.251	1.145
Produced Letters Post-Event	-2.270(.566)	.000***	.034	.103	.314

[4] For all the subsequent regression analyses, all assumptions for model were met (linearity of logit not relevant as all independent variables were categorical, no overdispersion was present), and diagnostics (including Collinearity) are presented in Appendix 1.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Constant		.000		4.375	

Model 2 analyses antecedent-event behaviors using a logistic regression (see table 2.6). The analysis showed that in combination, the independent variables significantly impacted upon whether the individual was a lone actor terrorist or a solo mass murderer ($X^2(19)=169.313$ $p<0.001$). A number of variables were significant predictors of actor type. Individuals who had university experience, military experience, a history of criminal convictions, experienced a recent change in address, experienced a recent tipping point, showed evidence of social isolation, showed evidence of escalating anger just prior to the event, and stockpiled weapons were significantly more likely to be lone actor terrorists. Individuals who had a history of substance abuse, problems with personal relationships, experienced a recent stressor, experienced chronic stress, and a history with the attack location were significantly more likely to be solo mass murderers.

Model 3 analyses leakage related behaviors using a logistic regression (see table 2.7). The analysis showed that in combination, the independent variables significantly impacted upon whether the individual was a lone actor terrorist or a solo mass murderer ($X^2(7)=61.558$ $p<0.001$). Only two of the variables remained significant. Individuals who produced letters prior to their attack, and those who had help in procuring weaponry for their attack were significantly more likely to be lone actor terrorists.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Table 2.6 – Logistic Regression Analysis of Antecedent Event Behaviors

Variable	B(SE)	Sig.	Lower	Exp(B)	Upper
University Experience	-2.836(.902)	.002**	.010	.059	3.44
Military Experience	-3.129(.952)	.001**	.007	.044	.283
Criminal Conviction	-3.410(.955)	.000***	.005	.033	.215
Recent Address Change	-2.562(.815)	.002**	0.16	0.77	3.81
Tipping Point Experienced	-1.724(.770)	.025*	.039	.178	.807
Lived Alone	.618(.778)	.427	.404	1.856	8.531
History of Substance Abuse	3.593(1.003)	.000***	5.085	36.328	259.515
Socially Isolated	-1.807(8.72)	.038*	.030	.164	.907
Experienced Being Degraded	2.207(8.58)	.010*	1.689	9.084	48.857
Experienced Having a Promise Broken	3.050(2.963)	.303	.064	21.120	7023.44
Experienced Being Ignored	-.153(1.094)	.889	.101	.858	.7321
Experienced Others Not Caring For Them	1.720(1.017)	.091	.761	5.585	41.000
Felt Helpless	-.783(1.019)	.442	.062	.457	3.368
Problems with Personal Relationships	1.877(.755)	.013*	1.489	6.537	28.690
Evidence Anger was Escalating	-2.964(1.035)	.004**	.007	.052	.393
Experienced a Recent Stressor	1.880(7.67)	.014*	1.457	6.552	29.474
Experienced Chronic Stress	1.398(.633)	.027*	1.170	4.045	13.986
History with Attack Location	3.570(.861)	.000***	6.570	35.533	192.181
Stockpile of Weapons	-2.475(.849)	.004**	.016	.084	.444
Constant	2.328(1.025)	.023		10.260	

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Table 2.7 – Logistic Regression Analysis of Leakage Related Behaviors

Variable	B(SE)	Sig.	Lower	Exp(B)	Upper
Produced Letters Prior to the Attack	-2.253(.439)	.000***	.044	.105	.248
Made Verbal Statements to Family About Intent	-.634(.436)	.146	.226	.530	1.246
Made Verbal Statements to Wider Audience	.556(.447)	.214	.726	1.743	4.184
Others Aware of Grievance	-.543(.473)	.251	.230	.581	1.467
Expressed a Desire to Hurt Others	-.020(.423)	.962	.428	.980	2.244
Other Individuals Helped Procure Weaponry	-1.274(.587)	.030*	.089	.280	.883
Other Individuals Aware of Attack Planning	-.293(.469)	.532	.297	.746	1.871
Constant	1.881(.351)	.000		6.559	

Clustering Behaviors

In this section, we utilize multidimensional scaling techniques to assess the variables' relationships with one another rather than their relationship with pre-determined dimensions (e.g., lone actor vs. mass murderer).

The analysis below depicts a Smallest Space Analysis based on 16 supposed risk factors for engaging in lone actor events, be they inspired by ideology or personal grievance (or often both). The output (Figure 2.4) geometrically represents the levels of association between variables. The closer two variables are, the more often they co-occur and the less often each occurs in the absence of the other.

The output highlights a number of interesting findings:

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

1. Capability matters. Whilst much emphasis is placed upon motivations in various analyses, the below output highlights that capability should also be analyzed in as much detail. Whether the individual tried to recruit others (RECRUIT) and whether they had previous military experience (MILITARYEXP) are on opposite ends of the spectrum, meaning that they rarely co-occur. The reasons why individuals attempted to recruit others include issues such as not being prepared in terms of technical capability or individual psychology to go it alone. Military training may help negate such worries.

2. Many do not set out to be lone actors. The right hand side of the output illustrates a number of behaviors related to engagement with wider activist groups. They include whether the individual virtually interacted with members of a wider network (VIRTUALINTERACTION), interacted with members of a wider network face-to-face (F2F), tried to recruit others (RECRUIT), and whether others were aware of attack planning (OTHERSAWARE).

3. The most common co-occurring risk factors related to leakage and included whether the individual made verbal statements to friends and family about their intent (VERBALFAF), or verbal statements to wider audiences about their goals (VERBALWA), or grievance (AWAREGRIEVANCE).

4. Violent extremism is not an offline vs. online dichotomy. Our observations very often interacted with other members of a wider network in both virtual (VIRTUALINTERACTION) and real-world domains (F2F). This finding is presumably driven by the lone actor terrorist cohort.

5. Background factors mixed with short-term stressors are key to understanding many of the lone extremists. We included two variables related to recent stressors; stress (ELEVATEDSTRESS) and whether the individual experienced a tipping point prior to their violent radicalization (TIPPINGPOINT). These two proximal stressors are noticeably close to distal risk factors such as the experience of mental illness (MENTALILLNESS), substance abuse (SUBSTANCE ABUSE), previous military experience (MILITARYEXP), a history of criminality (CRIMINALCON) and a history

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

of violent behavior (PREVVIOLENCE). This is particularly noticeable when the group-related behaviors outlined in finding 2, appear on the opposite side of the output.

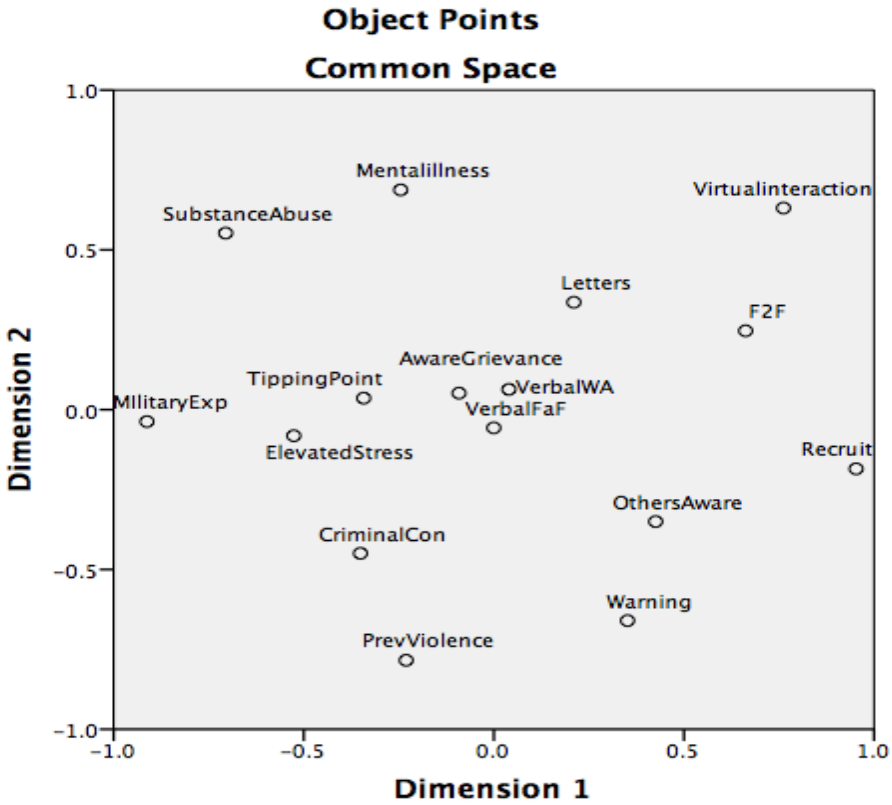


Figure 2.4 – Multidimensional Scaling Analysis of Behavior Clustering

Conclusion

What we see from the analysis we offer here is that lone actor terrorism and mass murderer attacks are (both) usually the culmination of a complex mix of personal, political and social drivers that crystalize at the same time to drive the individual down the path of violent action. Whether the violence comes to fruition is usually a combination of the availability and vulnerability of suitable targets that suit the heady mix of personal and political grievances and the individual's capability to engage in an attack from both a psychological and technical capability standpoint. Many individual cases share a mixture of personal life circumstances coupled with an intensification of beliefs that later developed into the idea to engage in violence. What differed was how these influences were sequenced. Sometimes personal problems led to a susceptibility to ideological influences. Sometimes long-held ideological influences became intensified after the experience of personal problems. This is why

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

we should be wary of mono-causal ‘master narratives’ about how this process unfolds. The development of these behaviors is usually far more labyrinthine and dynamic. The chapters that follow seek to measure (a) whether, in light of these findings, a new continuum-based understanding of large-scale individual violent actors is realizable and (b) whether the temporal sequencing of these violent radicalization pathways differ. The conclusion considers the practical implications of these findings.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

3. Rethinking Our Conceptualizations

Chapter two began with the assumption that lone actor terrorists and mass murderers are distinct categories of offender. The subsequent analysis highlighted that, in fact, they share more similarities than dissimilarities. The binary classification (lone actor terrorist versus mass murderer) is not so easy when we drill deeper into specific cases. Consider the cases of Jim David Adkisson (largely considered a terrorist) and Elliot Rodger (largely considered a mass murderer).

In 2008, Jim David Adkisson opened fire on a church congregation, killing two and injuring seven. Adkisson had a history of drug and alcohol problems and repeatedly lost jobs. The opening and concluding page of his four-page suicide note/claim of justification[5] outlines: "I guess you're wondering why I did this. Well let me explain in detail. Over the years I've had some good jobs, but I always got layed [sic] off. Now I'm 58 years old and I can't get a decent job. I'm told I'm 'overqualified', which is a codeword for 'too damned old'. Like I'm expected to age gracefully into poverty. No thanks! I'm done…No one gets out of this world alive so I've chosen to skip the bad years of poverty. I know my life is going downhill fast from here. The future looks bleak. I'm sick and tired of being sick and tired. I'm absolutely fed up". In his initial police interrogation, Adkisson admits to anger and depression stemming from his unemployed status and lack of future prospects. His food stamps were also at risk of being revoked, which Adkisson had only just learnt about prior to the shooting. Adkisson further admits he channelled this anger out on the church and its congregation. With these details, Adkisson appears to be like a typical solo mass murderer,motivated by personal grievances and life-circumstances.

However, the contents of Adkisson's suicide note/claim of justification go into great detail on the political reasons for his actions. There, he calls the Democrat party an ally of the terrorists in the war on terror and labels liberalism "the worst problem America faces today". He accuses major news outlets of being the "propaganda arm" of the Democrats. The note also blames liberalism for ruining the country and its

[5] The note can be found here http://web.knoxnews.com/pdf/021009church-manifesto.pdf

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

institutions “from the boy scouts up to the military, from education to religion”. The church he targeted is framed as a “cult”, ultra-liberal”, “a den of un-American vipers”, “a collection of sicko’s, weirdo’s, and homo’s”, that “embrace every pervert”. He refers to his actions variously as a “hate crime”, “political protest”, and a “symbolic killing”. He concludes the note: “So I thought I’d do something good for the country and kill Democrats ‘til the cops kill me…Tell the cop that killed me that I said, ‘Thanks, I needed that.’ I have no next of kin, no living relative. If you would take my sorry carcass to the body farm, or donate it to science, or just throw me in the Tennessee River”.

With this information, we can now depict Adkisson as an example of an individual whose personal life circumstances led to a series of problems that he largely blamed upon wider political processes which after a period of time built up to the extent that he decided to act violently. He chose to attack a church that he felt was a mirror image of the decay he saw emanating from Washington D.C.

However, this was not just a random church. Adkisson had previous contact with this church. His ex-wife previously attended there. His marriage had not ended well by any measure. According to court documents, Adkisson had threatened to “blow” both of their “brains out”. With that information, the landscape of Adkisson’s motivation changes again. We now have an individual whose personal problems he blamed on the political and when he decided to act upon it found a target that reflected his political concerns but also housed an individual he had a previous and highly acrimonious relationship with. In effect, a mixture of personal and political reasons led to his decision to act violently in the first place, and to act in that location specifically.

Similarly, Elliot Rodger developed over time a justification for killing, but his grievance was rooted not in a movement, but rather in an increasing frustration at his own social and sexual isolation. On May 23, 2014 in the California college town of Isla Vista, 22-year-old Rodger stabbed to death three men in his apartment and then went on a shooting rampage, killing two women outside of a sorority house and one other man, injuring 14 more before taking his own life. Again, a number of interrelated factors appear to have culminated in the murderous attack. According to

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

a New York Times article, Rodger (a) was emotionally disturbed as a youth (b) was deeply affected by the divorce of his parents when he was in the first grade, (c) was bullied and seen as an "oddball" throughout his school years (d) never had a romantic relationship and felt rejected by all women (e) became bitterly envious of his male and female peers who did have relationships, particularly sexual relationships (f) perceived himself to be under financial strain (g) had previously acted violently toward women for not paying attention to him (h) had made threats to kill people who aggrieved him. A detailed description by Lovett and Nagourney (2014) describes how before the attack, Rodger even mailed a lengthy testimonial ("My Twisted World") and posted a You Tube video ("Elliot Rodger's Retribution") just prior to his attack. The testimonial read like a political manifesto, just not a political stance that has much resonance outside of Elliot Rodger's world. He notes that he "expanded on the political and philosophical ideals I concocted when I was seventeen, and I soon became even more radical about them than I ever was before". Listed amongst his grievances are racial minorities and inter-racial couples. The video detailed his lonely suffering, his rage at girls who "gave their affection and sex and love to other men but never to me", and expressing his intent to punish all those who enjoyed the romantic and sexual success to which he aspired but never achieved (Lovett and Nagourney, 2014). In the final view, Rodger comes out a mass murderer and not a terrorist because the genesis of his action is found not in a movement or ideology but rather in personal agony.

Both Adkisson and Rodger experienced a range of personal, financial stressors coupled with social, political and personal grievances. Both experienced distal risk factors, had made threats of violence to others, had suicidal ideations and access to firearms. Their violent acts were very similar. One is treated as a terrorist, the other as a mass murderer. Is there a better way to categorize these types of offenders?

Borum, Fein and Vossekuil (2013) outline a dimensional approach to understanding lone actor terrorism. They the case that instead of debating definitions, it may be more useful to view (a) the degree of loneness the offender exhibited (b) the degree of external direction the offender received and (c) the depth of their political motivation, as continuums. "Analyzing cases by their features, rather than by their types, might better aid the investigative process, particularly if each dimension is linked to a key

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

facet of the attack and tracked across the spectrum of attack-related activity from idea to action" (2013:104). They refer to these three such features as loneness, direction and motivation. Loneness measures independence of activity. The loneness continuum plots the degree to which offenders received assistance in initiating planning, preparing for and executing the attack. Direction measures the level of autonomy the lone actor displayed in decision-making. It plots the degree to which the offender received instruction or guidance on issues concerning whether to attack, what to target and the attack type to deploy. The motivation continuum plots the degree to which the action is ideologically or personally driven. Borum et al. (2013) make the case that very few offenders will be placed on the extremes of a continuum but are likely to be found somewhere between the polar opposites.

We put this theorizing to the test by plotting each of our lone actor terrorists and mass murderers on a three-dimensional continuums space. Each offender was assigned a score for each of the three continuums.

We adapted Borum et al.'s continuums slightly to make a finer distinction between the loneness and direction continuums. For the loneness continuum, we included behaviors related to the degree to which the individual had prior contact with members of a wider network prior to the plot's inception as well as whether others were aware a plot was being developed. Basically, the loneness continuum captures the degree to which bystanders may have noticed something in the individual's violent radicalization trajectory. We included behaviors such as whether or not the individual (a) raised finance for a wider movement (b) had recently joined a wider pressure group or movement (c) made verbal statements to others about their intent to commit violence (d) expressed intentions to hurt others (e) had other individuals in their close social network involved in violent activity for a group/cause (f) had a spouse involved in a wider group/cause (g) engaged in face to face interactions with members of a wider network (h) engaged in virtual interactions with members of a wider network (i) attempted to recruit others (j) was rejected from a wider group/movement. For each behavior carried out by the offender, they received one point. Those scoring high here are therefore not very lone, those scoring low are very lone up (until the point of plotting).

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

The direction continuum looks at the degree of external help/coordination/direction provided from the point of plot inception to the point of the attack (remember, to be included in this dataset they needed to carry out the attack alone). We included behaviors such as whether or not the individual (a) sought legitimization from epistemic authority figures for their attack (b) received training (c) learnt aspects of their attack from virtual sources (d) downloaded bomb-making manuals (e) other individuals procured the weaponry on their behalf (f) other individuals helped build the Improvised Explosive Device (IED) for them (g) others had knowledge about the attack planning (h) displayed evidence of command and control links. For each behavior carried out by the offender, they received 1.25 points.

At one end of the motivation continuum are those individuals who are purely ideologically motivated. At the other end are those purely motivated out of personal grievances. We included behaviors such as whether they (a) directly communicated a stated ideology (b) wrote letters/publications espousing an ideology (c) made verbal statements to friends/family about their ideology (d) had other people be aware of their grievance (e) had other people be aware of their extremist ideology (f) consumed propaganda from a wider group/movement (g) claimed the attack on behalf of a group. The received 1.11 points if any of these behaviors were apparent. They were deducted 1.11 points if either of the following behaviors were apparent (a) a recent stressor or (b) chronic stress. The motivation scale therefore initially ran from -2.22 (personally motivated) to 7.77 (ideologically motivated).

We were then left with scores for each offender across each continuum. As an illustration, let's return to the cases of Adkisson and Rodger which opened this chapter. Adkisson scored 1 on loneness, 1.25 on direction and 5.55 on motivation. Rodger scored 3 on loneness, 1.25 on direction and 4.44 on motivation indicated he was less 'lone' and slightly more personally motivated. At a very aggregate level, there were significant differences between our lone actor terrorists and mass murderers across all three continuums. Lone actor terrorists were significantly higher up each continuum

- Motivation (M = 4.11 vs. -.2, t(106.45) = -18.745, p <.001)
- Direction (M=1.70 vs 0.23, t(78.99) = -7.68, p < .001)
- Loneness (M=2.97 vs. 1.16, t(100.16) = -6.25, p < .001)

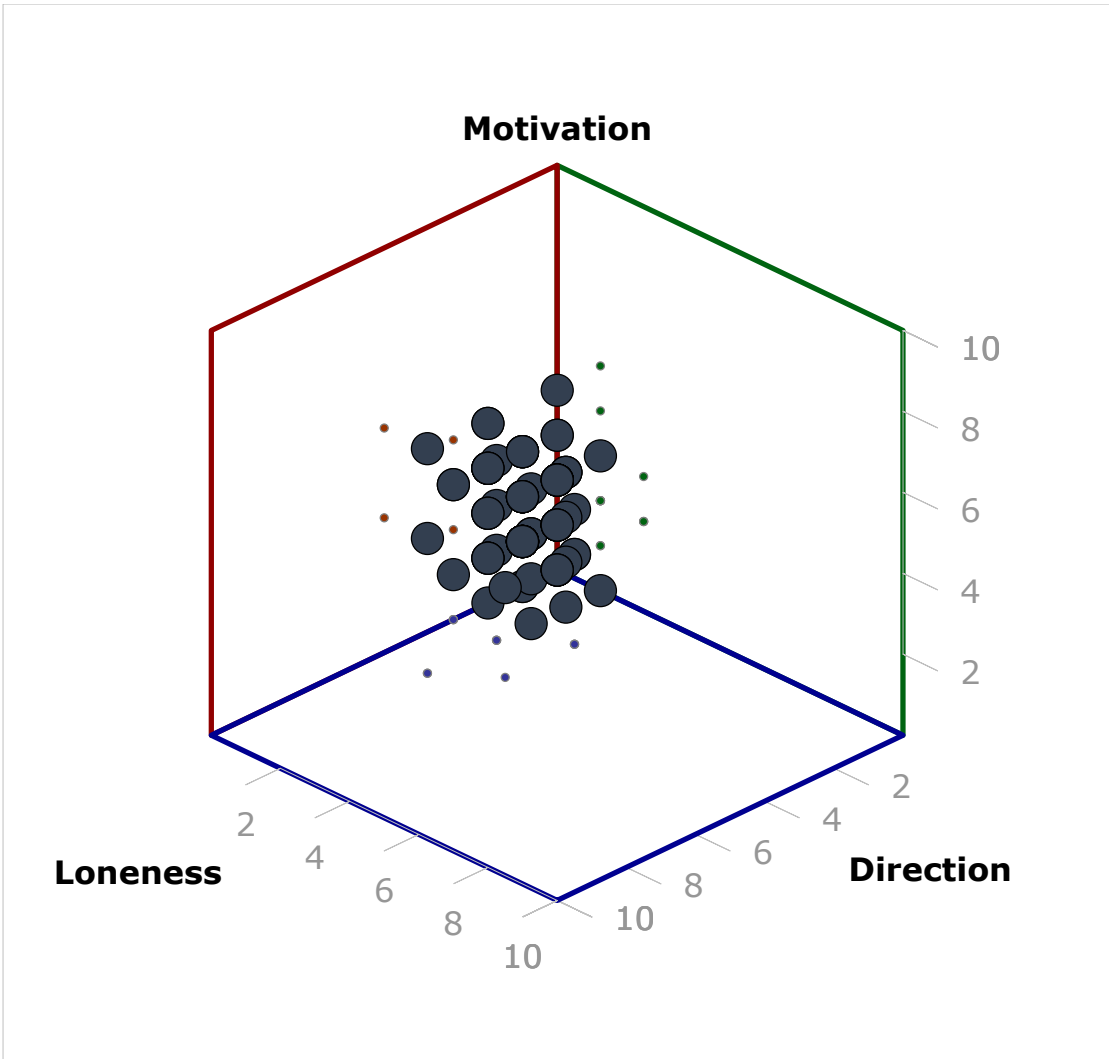
This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

In other words, on average, lone actor terrorists were less ‘lone’, more directed and more politically motivated. This is perhaps unsurprising given the different underpinnings of these two criminal offender types. However, once we plotted these scores on a three-dimensional space, some interesting results emerged.

For the below visualizations, we computed direction scores to resemble the 0-10 scale in the other two continuums. Figure 3.1. plots all mass murderers on the three dimensional space. They showed little variance in terms of the loneness continuum, with 33% scoring 0, a further 33% scoring 1 and a further 23% scoring 2. There was even less variance on the direction continuum, with 80% scoring 0 and 16.5% scoring 1. The remaining four offenders all scored 2. The motivation continuum received the greatest level of variance, with 42% scoring a combined figure of the two lowest scores, with 26% collecting scores closer toward the ideological end of the spectrum.

Figure 3.1. Plotting Mass Murderers Across Three Dimensions

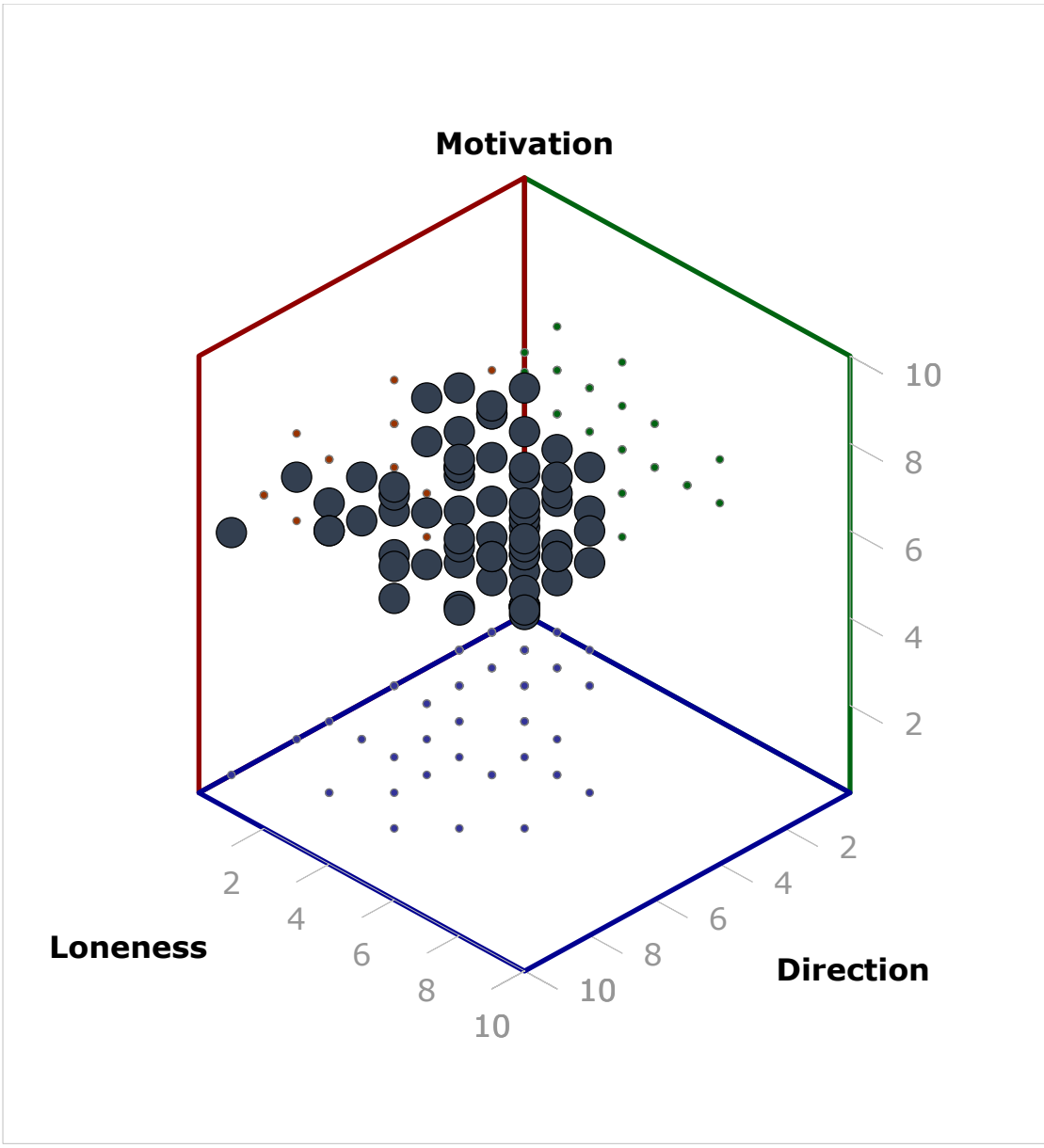
This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.



As you would expect from the comparison of means results, above, greater variation was apparent within the lone actor terrorists. Just under half of the offenders scored three or more points. A quarter scored five or more points. However, the other half of offenders scored similar points to 80%+ of the mass murderers (e.g. in the 0 to 2 range). In terms of the direction continuum, 30% scored two or more points, with five offenders scoring more than 5. 16% however scored 0, which is what the vast majority of mass murderers scored. In terms of motivational continuum, 75% scored three or more points. The results are displayed in Figure 3.2

Figure 3.2. Plotting Lone Actor Terrorists Across Three Dimensions

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.



This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Finally, Figure 3.3 includes both lone actor terrorists (blue) and mass murderers (red). Although there is a clear demarcation between a large number of lone actor terrorists and all of the mass murderers the higher up the motivation continuum, it is evident also that very many lone actor terrorists inhabit similar areas that the vast majority of mass murderers are typically plotted. So whilst many lone actor terrorists are most definitely a different breed than mass murderers, many of them do appear exceptionally similar to mass murderers in these three regards.

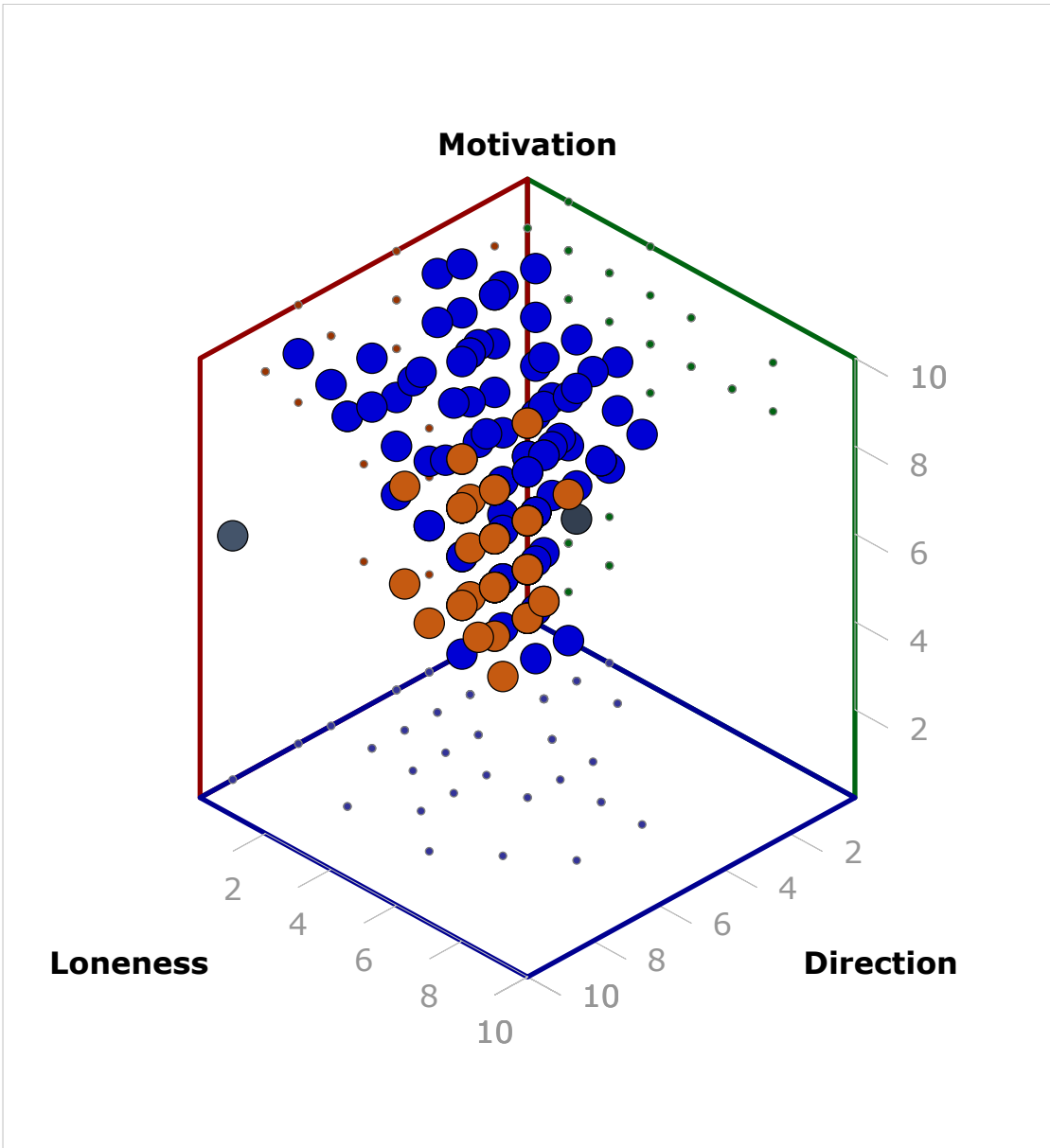


Figure 3.3 Plotting Mass Murderers and Lone Actor Terrorists Across Three Dimensions

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

4. 'Risk Factors' and Lone Actor Violent Events: The Problems of Low Base Rates & Long Observational Periods

Chapters two and three outlined a series of studies related to the prevalence and clustering of various indicators and risk factors potentially associated with lone actor terrorism and mass murder events. In terms of the methodological approaches taken and in terms of how the variables were treated, the chapters typified the wider study of school shooters (Langman, 2009), mass murderers (Bowers et al, 2010), lone actor terrorism (Gill et al, 2014) and spree shooters (Lankford, 2013). Such studies of low likelihood events build on the study of risk and high-volume crimes like arson and stalking. Whilst the burgeoning number and rigorous quality of data-driven approaches is to be welcomed, a key methodological factor differentiates these two types of crime studies, and it is one frequently overlooked by the former. Studies of high-likelihood, low-impact crimes typically utilize a sample of offenders that are highly clustered temporally. For example, they analyze offenders from a wider cohort born in the same year (and often in the same town) or they analyze similar offences that occurred in the same year. Such studies can afford to do so simply because of the high volume of observable offenders. Such approaches can potentially highlight risk factors that are relevant to that cohort or geographic space which are essentially outliers and not generalizable to offenders outside of that temporal or geographic space. However, given the comparative ease of conducting such studies, these outlier risk factors can be weeded out via replication studies conducted in very different locations and at very different times.

The study of risk factors associated with engaging in high-impact, low-likelihood violent events is afforded no such luxury because thankfully these crimes remain rare. Instead, these studies collect data on offenders across a large number of years. For example, Meloy et al. (2001) analyzed offender characteristics of 27 mass murderers (individuals who killed three or more in a single event) over a 41-year period. Hempel and Richard's (1999) analysis of mass murderers focuses on 30 cases spread over 50 years. Gill (2015) analyses 111 lone actor terrorists from 1990 to 2014. Finally, Fein and Vossekuil (1999) conducted a behavioral analysis of 83 assassins

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

and (attempted) attackers over a 50-year period. Each study highlights risk factors, yet fails to consider whether these factors are driven by temporal-cohorts within the wider observation pool or are uniform across the expanses of time under consideration. We never know if the high prevalence of one factor in the overall sample due to it being universally present in a small time frame or is it distributed evenly across the time period. This is potentially most worrisome in those analyses where the number of years of study is far greater than the number of individuals analyzed. In other words, though the complete descriptive results may indicate a large propensity for a behavior to occur, a temporal analysis may indicate that the propensity for the behavior to occur actually decreases (or increases) over time. As a consequence, and unless this is specified, there may not exist the same implications for future investigations. This has major repercussions for how risk assessment protocols are developed going forward. A more useful approach is to determine which facets of offender behavior are increasing/decreasing across time and whether this trend (if any) is statistically distinguishable from random behavior.

This chapter compares a cohort of violent lone actors (composed of lone actor terrorists, and solo mass murderer attackers) from 1990-2005 with a cohort from 2006 to 2013. The latter period witnessed a step-change in the rate and intensity of lone actor mass violent events so a corollary to this exploration of whether risk factors differ across time is to try and identify factors that may help explain this recent increase in events.

Do 'Risk Factors' Change Over Time? Learning from High-Likelihood, Low-Impact Crimes

In 1995, Kaplan lamented that studies have not demonstrated the association between risk factors and criminality for two different generational cohorts. Twenty years later, Farrington et al (2015:48) outlined that a "key issue in criminology is to what extent are risk factors for offending similar over time", yet the "question has rarely been investigated". As mentioned previously, the risk factor literature related to violent and frequent crime is typically unworried by this temporality/generalizability issue because the volume of such studies can distinguish between risk factors that are common or outliers. The alternative to such approaches is to compare similar crimes

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

in similar contexts, but in different temporal eras. We are aware of only four such studies, three of which have been published since 2013. This section briefly outlines these studies.

Farrington et al. (2015) investigated the extent to which a wide variety of risk factors can predict general offending across two generations. Utilizing the Cambridge Study in Delinquent Development they compared the original sample of 411 males from London with their children. Risk factors for both generational cohorts were positively correlated. Eleven risk factors were significant predictors for offending in both generations. They included a convicted father and mother, harsh discipline, poor parental supervision, a disrupted family, low family income, large family size, poor housing, low school attainment, daring/risk-taking and antisocial child behavior. The findings only distinctly differed on three factors: parental conflict, low social class and hyperactivity/attention problems (although this last risk factor was measured differently across the two generations). The risk factors were therefore generally very robust across generations with the author's concluding, "most of the findings in one generation were remarkably replicable in the next generation" (2015:60).

Menard and Johnson (2015) employed a similar research design to Farrington et al. (2015). They analyzed data from the National Youth Survey Family Study (NYSFS), which had an original sample of 2,360 youths aged between 11 and 17 in late 1976. Menard and Johnson compared the results of this original sample group with the sample group's children in 2003-2004. They found similar inter-generational risk factor robustness in terms of delinquent peer bonding and offending. Differences emerged in terms of gender as a predictor between generations 1 and 2 (e.g. being a male is less important), while the impact of school strain (e.g. poor grades and lower expectations of gaining a college education) became an important predictor in the later generation.

Johnson et al. (2015) utilizes the same data as Menard and Johnson (2015), but tests a different series of predictor variables. Seven of the nine predictors demonstrated the same significance scores and direction in relationship inter-generationally. The earlier generation was more heavily influenced by negative life events (for example parental

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

divorce/separation), whilst the later generation was more influenced by delinquent peer association.

Farrington and Loeber (1999) came to similar conclusions in their comparative study of the 411 London males from the 1960s (mentioned above) with a replication study entitled the Pittsburgh Youth Study, which examined 508 males in the 1980s. The results indicated that the risk factors were not only temporally robust but also geographically robust.

The four studies therefore illustrate that risk factors associated with general offending and delinquency have proven to be quite robust across generational cohorts. In the next section, we conduct a series of analyses to investigate whether the same holds true for lone actor violent events.

Method

We compared the prevalence of risk factors across two temporal domains within this combined sample of lone actor terrorists and solo mass murderers. We decided to split the sample from 1990-2005 and 2006-2013. This is because from 2006 onwards, there was a distinct scale shift in the number of actors per year: 1990-2005 averages 5 per year; the corresponding figure for 2006-2013 is 12.75.

We then used bivariate analyses to compare the prevalence of socio-demographic and behavioral differences. Variables displaying significant differences were then entered into a logistic regression to illustrate which factors held the most predictive power as to whether they occurred within the phase 1990-2005 (0) or 2006-2013 (1).

Results

We found no significant differences in terms of socio-demographic variables across the two temporal periods. This included factors such as age, education, and socio-economic status. Table 4.1 outlines those variables with significant differences.

Table 4.1: Bivariate Comparison of Behaviors between 1990-2005 and 2006-2013

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

						95% Confidence Interval	
Variable	**X^2**	**1990-2005 (%)**	**2006-2013 (%)**	**p**	**Odds Ratio**	**Lower**	**Upper**
Military Experience	15.590	38.0	13.1	0.001****	0.246	0.119	0.506
Previous Imprisonment	4.274	21.5	35.5	0.039***	2.009	1.031	3.913
Verbalized Intent to Family	4.266	50.6	35.5	0.039***	0.537	0.297	0.971
Verbalized Intent to Wider Audience	9.035	50.6	29.0	0.003***	0.398	0.217	0.730
Others Aware of Grievance	9.611	72.2	49.5	0.002***	0.379	0.204	0.705
Experienced a Tipping Point	12.835	65.8	39.3	0.001****	0.336	0.183	0.615
Experienced being Degraded	9.923	43.0	21.5	0.002***	0.362	0.191	0.688
Target of Injustice	13.246	45.6	20.6	0.001****	0.309	0.162	0.589
Expressed Desire to Hurt Others	3.032	63.3	50.5	0.082*	0.591	0.326	1.070
Experienced Recent Stressor	4.951	59.5	43.0	0.026**	0.513	0.285	0.926
Substance Use Prior to Event	2.991	8.9	17.8	0.084*	2.221	0.884	5.577
Multiple Attack Methods	4.510	12.7	25.2	0.034**	2.329	1.053	5.151
Non-Discriminate Target	5.309	26.6	43.0	0.021**	2.083	1.110	3.907
Face to Face Interaction	9.449	31.6	13.1	0.002***	0.325	0.156	0.678

Overall, the results indicate that very few behaviors can be solely attributable to the upward scale shift in lone actor terrorist and mass murder incidents in the 2006-2013 period. Out of the vast number of behaviors tested, only five show a greater preponderance in the 2006-2013 era, and one is only marginally significant (substance use prior to attack). Perhaps it is no great surprise that offenders are now significantly more likely to make use of the Internet in their planning given its ubiquity in routine activities for the whole population but the percentage rise is still relatively small (17%) compared to the more than doubling of events in both time periods. The 2006-2013 cohort is also significantly more likely to have been previously imprisoned,

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

engaged in multiple attack methods (e.g. a bombing and a shooting) and targeted ordinary citizens rather than a political or military target for example.

The results also indicate that the 2006-2013 period contains fewer offenders who (a) had previous military experience (b) made verbal statements to family/friends/wider audiences about their intent and beliefs (c) socialized face to face with members of a wider network (d) experienced being degraded or the target of an act of prejudice or unfairness (e) expressed a desire to hurt others (f) experienced a recent stressor. It is worth re-iterating that whilst prior military experience is often noted in media reports regarding the increase in mass murder events, the statistics suggest this factor only appears a third as much in the current era than it did in the 1990-2005 era which suggests that some so-called risk factors may have cohort-effects rather than having stable influences over time.

It suggests therefore that the crystallization of risk factors noted elsewhere in our research has perhaps become more diffuse in the 2006-2013 period. Future research may also investigate whether there is a greater clustering or copycat effect in the latter era.

The logistic regression shows that, in combination, the independent variables significantly impacted on temporal era, $X^2(14) = 54.965$, $p < 0.001$. The model correctly predicted 72.6% of responses. Specific individual variables were significant predictors of year of attack as shown in Table 4.2. Odds of greater than one indicate a positive relationship between the predictor and dependent variable.
Those individuals with military experience were more likely to carry out an attack in the years 1990-2005. Individuals who utilized multiple different weapons in an attack were more likely to carry out the attack in the years 2006-2013. Individuals who interacted with like-minded members of a wider network were more likely to carry out an attack in the years 1990-2005.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Table 4.2: Logistic Regression of Behaviors between 1990-2005 and 2006-2013

			95% CI for Odds Ratio		
Variable	B (SE)	Significance	Lower	Exp (B)	Upper
Military Experience	-1.272(0.438)	0.004***	0.119	0.280	0.662
Previous Imprisonment	0.616(0.407)	0.129	0.835	1.852	4.109
Verbalized Intent to Family	-0.283(0.417)	0.497	0.333	0.754	1.706
Verbalized Intent to Wider Audience	-0.345(0.426)	0.419	0.307	0.708	1.633
Others Aware of Grievance	0.379(0.463)	0.414	0.589	1.460	3.662
Experienced a Tipping Point	-0.605(0.409)	0.139	0.245	0.546	1.217
Experienced being Degraded	-0.586(0.412)	0.155	0.248	0.557	1.248
Target of Injustice	-0.586(0.412)	0.111	0.208	0.494	1.174
Expressed Desire to Hurt Others	-0.705(0.442)	0.595	0.369	0.808	1.771
Experienced Recent Stressor	-0.408(0.382)	0.286	0.315	0.665	1.406
Substance Use Prior to Event	0.218(0.577)	0.705	0.402	1.244	3.851
Multiple Attack Methods	0.871(0.495)	0.079*	0.905	2.389	6.307
Non-Discriminate Target	0.442(0.398)	0.267	0.713	1.556	3.395
Face to Face Interaction	-1.137(0.484)	0.019**	0.124	0.321	0.829
Constant	1.426	0.003		4.162	

Note: B= regression coefficient, Exp (B)= odds ratio
****=p<.001; ***=p<.01; **p=<.05; *p=<.1

Conclusion

The results illustrate the importance of considering temporality with low-likelihood, high impact events such as these. Approximately 20% of the variables that were tested in a bivariate manner displayed demonstrably different prevalence rates across two eras. This has several implications. First, we should treat with caution some findings related to risk factors in studies of low-likelihood, high-impact events. This is especially the case for those studies where the years under consideration are greater (or even approximate to) the number of units of observation because there is likely a great variance within the sample. Because of this caution, studies should highlight this fact and draw some inferences about what variables are on the increase/decrease. Second, it also highlights the need for law enforcement and intelligence agencies to consistently update their threat assessment protocols because some factors that underpin risk may be dynamic in nature. Technological, societal and environmental

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

changes can open a gateway for a new generation of offenders or act as a deterrent and hence the risk factors associated with these types of crimes can change. Relatedly, it calls for the need to continuous and systematic data collection procedures. Finally, this finding might necessitate moving away from examining risk factors in isolation. Instead, perhaps we should look at how factors cluster, sequence and crystalize and whether some risk factors act as substitutes in the absence of others (e.g. does the Internet replace the need for face-to-face interaction with members of a wider network). Through such endeavors we may come to realize a mechanism-based approach to understanding the factors that may signal low-likelihood, high-impact attacks.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

5. Routine Activity Case Studies

Whilst chapter four was interested in whether the prevalence of risk factors and indicators changed over time, this chapter is interested in a different aspect of temporality and risk. More specifically, it is interested in how pre-attack behaviours are sequenced temporally within specific cases. This chapter draws heavily from established conceptual frameworks such as Situational Crime Prevention and Routine Activity Theory, in order to understand the behaviors that have underpinned previous successfully executed lone actor terrorist events. As noted by Horgan (2005:109), it is useful to view each terrorist offence as comprising of a series of stages "almost with a natural history from inception to completion." Through such a process, it may be possible to formulate phase-specific intervention strategies that seek to deter and disrupt future lone actor terrorist plots. In order to illustrate the applicability of routine activity theory to understanding terrorist events, this report provides five routine activity analyses of lone actor terrorist events.

Situational crime prevention (SCP) focuses upon crime events rather than criminality (for a full exploration of SCP in relation to terrorism see Clarke and Newman, 2006 and Freilich and Newman, 2009). Rather than focusing on individual characteristics of the criminal, situational crime prevention attempts to understand the *how* and *what* of crime: from an analysis of the offender to a greater consideration of the social and behavioral qualities of the offense. Though later analyses reduced the more overt emphasis on rational choice theory, such perspectives view offenders as a rational decision maker who evaluates the costs and benefit of committing or disregarding the crime (Carroll & Weaver, 1986; Cornish & Clarke, 1986). It has a specific focus upon the 'near causes' of crime, the situational aspects that make a crime more likely to occur or a potential victim more likely to be victimized. Opportunity therefore is seen to be an important cause of crimes and a focus for prevention. The attractiveness of SCP is that opportunity is often more malleable than an offender's internal disposition. We see SCP every day in relation to counter-terrorism, including target hardening of key buildings, the West Bank barrier, making fertilizer inert and therefore no use in the development of HME and airport security. All of these measures are in place to reduce the likelihood of a terrorist attack, not to prevent or

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

disrupt the adoption of extremist ideologies or to alleviate perceived grievances. It is about the controlling the process of how terrorist attacks may be executed, rather than ameliorating the drivers behind why the attack is being planned in the first place. Rather than focusing upon identifiers of the individual's radicalization or general intelligence capabilities or potential to engage in terrorist activity, SCP approaches are much more interested in factors such as the routine decisions that underpin the actual act of violence.

Using the framework outlined in Horgan (2005), each of five lone actor case studies and two solo terrorist case studies below is disaggregated into four specific stages; (a) decision and search activity, (b) preparation, (c) event execution, and (d) post-event activity and strategic analysis. The decision and search activity phase includes endeavors such as target selection. Targeting is not a random exercise, but rather is usually the result of careful deliberation and can be affected by contemporary political and security climates as well as individual capabilities (Horgan, 2005:111).

The preparation phase addresses the operational, logistical and organizational issues affecting the violent event. Whereas the decision phase sets a broad strategic agenda, the preparation phase covers tactical concerns. Choosing the correct tactic for particular operations may be influenced by a number of issues, including technological feasibility, cost-effectiveness, deterrent value, the post-event image of the individual and his/her motives to wider constituents and supporters, the dangers of unwanted results (e.g. extreme repression by counter-terrorists or the possibility of the wrong people being killed) and the ability to overcome security measures (Dolnik and Bhattacharjee, 2002). The direct manifestation of violence may be a function of the individual's ability to procure or develop different types of weaponry or explosives. From a logistics standpoint, this phase usually sees organizational decision makers choosing individual(s) with the specific skillsets and experience to engage in the event and equipping the individual(s) with the weaponry to do so. With lone actor terrorists, however, the preparation phase may look different because they cannot rely upon routine activities that may be perfected by groups over time or a terrorist group's network of specialized talent. Surveillance of targets, building a bomb, testing the device, procuring weaponry and concealing or hiding physical evidence also fall within this phase. If present, these activities illustrate not only premeditation, but also

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

other facets that concern the temporal and sequential flow of the preparation of a terrorist attack.

The event execution stage is the sole phase that the terrorist plays out in public. It may involve a number of discrete events, such as maintaining security pre-event (e.g. priming an IED in secrecy). Other events include the transport of the individual and/or IED to the location of the planned attack, or in the case of a shooting attack, storage of the offending weapon post-attack. It also includes aspects of decision-making that concern the time of day to commit the offence and considerations of risk and opportunity in the commissioning of a terrorist offence.

The final phase of post-event activity and strategic analysis includes ensuring that the lone actor can escape after the event without being arrested or killed as well as conducting a review of the whole attack. The adaptations present in follow-up attacks may reflect aspects of the offender's strategic analysis.

The case studies elaborated upon below include the attacks attributed to five lone actor terrorists, five mass murderers and two solo terrorists. These cases represent a good mixture of bombings, shootings and alternative attack types. They also represent a good spread of al-Qaeda inspired, left-wing and right-wing causes.

Lone actor Terrorists

Mohammed Reza Taheri-Azar

On March 3rd, 2006, Taheri-Azar attempted to 'run over' students attending University of North Carolina (UNC) – Chapel Hill with a vehicle. In total, he injured nine. There were no fatalities.

Decision and Search Activity Stage

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Taheri-Azar's decision to turn to violence seems largely a response to U.S. foreign policy and developed over the course of two years. His letter of responsibility[6] claimed that "due to the killing of believing men and women under the direction of the United States government, I have decided to take advantage of my presence on United States soil…to take the lives of as many Americans and American sympathizers as I can in order to punish the United States for their immoral actions around the world". He cited religious justification for his actions: "In the Qur'an, Allah states that the believing men and women have permission to murder anyone responsible for the killing of other believing men and women. I know that the Qur'an is a legitimate and authoritative holy scripture since it is completely validated by modern science and also mathematically encoded with the number 19 beyond human ability. After extensive contemplation and reflection, I have made the decision to exercise the right of violent retaliation that Allah has given me to the fullest extent to which I am capable at present". Although Taheri-Azar did not manage to cause any fatalities through his attack, according to his letter of responsibility his intention was to "murder citizens and residents of the United States of America…by running them over with my automobile and stabbing them with a knife if the opportunities are presented to me by Allah".

Preparation Stage

Taheri-Azar began his preparations for the eventual attack two months prior to the attack. He initially wanted to join the U.S. military in order to use their weapons against a U.S. target. In a letter to a local media outlet following his arrest he stated, "ideally…I wanted to fly an airplane over Washington, D.C. and drop a nuclear bomb on the city". As a part of this plan, he allegedly twice met Army recruiters at his office and applied to a number of clinical psychology graduate schools to prepare for a position as a fighter pilot. Within a month, this plan was abandoned.

[6] Taheri-Azar left this letter in his apartment for police to find. The contents of which are widely available online.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

By February of 2006, his second plan involved a shooting attack inside the Lenoir Dining Hall at the UNC – Chapel Hill campus. Taheri-Azar provides two different accounts of why this plan was abandoned. In his letter of responsibility he states that he applied for a permit for a handgun but "the process of receiving a permit for a handgun in this city is highly restricted and out of my reach at the present, most likely due to my foreign nationality". In a letter to local media after his arrest, however, Taheri-Azar states that although he visited a gun store in Raleigh, North Carolina, and obtained the necessary application documents for a gun permit from the Orange County Sheriff's Department in Hillsborough, he changed his mind "about attacking with a gun because they seem to jam very easily," or "malfunction and acquiring one would have attracted attention to me from the FBI in all likelihood".

Taheri-Azar finally decided to engage in a vehicular assault "by running over several people in a concentrated target zone". He also acquired two cans of pepper spray, a five-inch knife, and viewed Navy Seals training videos. All of these actions were geared towards aiding Taheri-Azar in the case of a physical confrontation immediately following the vehicular assault.

Taheri-Azar decided to attack students at the University of North Carolina because it was close to his home. He was also familiar with the location—he graduated from UNC the previous December. Taheri-Azar also chose to time his attack to coincide with lunch in order to maximize the number of potential fatalities and injuries. His letter of responsibility claimed that, "I have chosen the particular location on the University campus as my target since I know there is a high likelihood that I will kill several people before being killed myself or jailed and sent to prison if Allah wills".

Shortly before the attack, Taheri-Azar penned a letter claiming responsibility for the attacks. The day before the attack itself, Taheri-Azar rented a Jeep Cherokee for the specific purpose of using it in the attack. He chose this vehicle because it "runs things over and keeps going".

Event Execution Stage

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Between 11:30am and 11:53am, Taheri-Azar left his apartment and drove toward campus. At 11:53am Taheri-Azaar drove the rented Jeep Cherokee onto UNC Chapel Hill's campus. He drove toward "The Pit", a student hub, and accelerated aiming to hit nearby students. After his first attempt, he made a 90-degree turn around the dining hall and proceeded to try to assault more students. Taheri-Azar drove two more miles, near the University Mall, and then phoned a police dispatcher and turned himself in. Later, Taheri-Azar stated that he turned himself in "to assure the world that I wasn't some insane person who went on a killing rampage suddenly".

Post-Event Activity and Strategic Analysis

Overall, Taheri-Azar was disappointed in the attack's outcome. He stated disappointment that "there weren't more people in the area". There is little other publicly available information on how Taheri-Azar analyzed his event after the fact.

Timothy McVeigh

Executed by Timothy James McVeigh, on April 19th 1995, the Oklahoma City Bombing killed 168 people and injured over 500. This remained the deadliest terrorist act on American soil until the events of September 11th, 2001.

Decision and Search Activity Stage

McVeigh had a long-standing interest in firearms. Trained to shoot by his grandfather from an early age, McVeigh would later consume many gun-related publications, and frequented military stores and gun shows talking to others about weaponry and gun rights. Over time, he became gradually more immersed in the survivalist movement and radical right-wing literature. He read *The Turner Diaries*[7] dozens of times, cajoled others into reading it and began to adopt its message.

[7] The day of the bombing, McVeigh was arrested. Inside his getaway vehicle, officers found an envelope with slips of paper McVeigh had clipped from books and newspapers. One such slip of paper contained

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

In May 1988, McVeigh decided to join the army and participated in U.S. Army basic training at Fort Benning, Georgia. There, McVeigh formed a close bond with two of his later co-conspirators in the attack at Oklahoma City: Terry Nichols and Michael J. Fortier. McVeigh and Nichols, in particular, withdrew from others in their unit. McVeigh's interest in survivalism continued during his time in the army. After being transferred (alongside Nichols and Fortier) to Fort Riley, Kansas, McVeigh rented a storage unit which he stocked with 100 gallons of fresh water, weaponry, ammunition, rations and other supplies.

McVeigh was deployed during Operation Desert Storm. In battle he killed two Iraqi soldiers. In later interviews, McVeigh suggested these killings contributed to his suffering from post-traumatic stress. The underlying reasons behind the war and the depth of power asymmetry in the battle itself bothered him. He also became convinced the United Nations was planning to take over the world. Upon returning from Operation Desert Storm, McVeigh became a decorated soldier (Bronze Star, the Army Achievement Medal, the Southwest Asia Service Medal and the Kuwait Liberation Medal). He discharged from the Army in 1991, disillusioned by his failure to join the Army's Special Forces. This in turn led to a growing dislike of the U.S. government. After being discharged, McVeigh became increasingly paranoid that the government intended to take away his rights, especially the right to bear arms. McVeigh's anger toward the government increased following the FBI siege at Ruby Ridge during the summer of 1992, and grew further during the standoff between the U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) and the Branch Davidians in Waco, Texas (an event McVeigh drove to and witnessed first-hand). One month after witnessing the fatal raid and fire at Waco (alongside Nichols), McVeigh told Fortier and his wife it was time to act violently against the government.

Prior to the bombing, McVeigh corresponded with a Michigan woman who made the letters available to the FBI after the bombing. One letter reads:

---

a paragraph from the *Turner Diaries* that read "The real value of our attacks today lies in the psychological impact, not in the immediate casualties."

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

> The people of this nation should have flocked to Waco with their guns and opened fire on the bastards! The streets of Waco should have run red with the blood of the tyrants, oppressors and traitors that have slaughtered our people. Every person responsible for this massacre deserves nothing less than to die. If we want to live in peace, then sometimes we must go to war…If this is too extreme for you, then bow down, lick the hand of your master like a willing, complacent whore and shut your mouth. Take whatever is dealt to you and your children and do not dare to complain to me about your fate. I do not have the patience to listen to the whining of cowards. There will be future massacres because we allow them to occur (cited in Kaplan, 1997:93)

At McVeigh's trial, the prosecution's opening statement outlined that "Waco really sparked his anger; and as time passed, he became more and more and more outraged at the government, which he held responsible for the deaths….And he told people that the federal government had intentionally murdered people at Waco….He described the incident as the government's declaration of war against the American people. He wrote letters declaring that the government had drawn… 'first blood'… at Waco; and he predicted there would be a violent revolution against the American government. As he put it, blood would flow in the streets." While on death row, McVeigh confirmed the prosecution's arguments. In a letter to Fox News Correspondent Rita Cosby, McVeigh explains that "foremost, the bombing was a retaliatory strike, a counter attack, for the cumulative raids (and subsequent violence and damage) that federal agents had participated in over the preceding years (including, but not limited to Waco)….This bombing was also meant as a pre-emptive (or proactive) strike against these forces and their command and control centers within the federal building." In a separate letter shown to the *Observer* newspaper, McVeigh stated further that when the "branches of government concluded that the federal government had done nothing fundamentally wrong during the raid…the system not only failed the victims who died during the siege but also failed the citizens of this country. This failure in effect left the door open for more Wacos." He then "reached the decision to go on the offensive – to put a check on government abuse of power, where others had failed in stopping the federal juggernaut running amok.…Borrowing a page from U.S. foreign policy, I decided to send a message to a government that was becoming increasingly

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

hostile, by bombing a government building and the government employees within that building who represent that government."

Preparation Stage

McVeigh's plan required more than 5,000 pounds of ammonium nitrate fertilizer, approximately 1,200 pounds of nitro methane racing fuel, 350 pounds of Tovex, and 16 55-gallon drums; this contributed to a total of 7,000 pounds. McVeigh realized this was far too much to assemble on his own, so he persuaded Fortier and Nichols to help him. At some point, McVeigh and Nichols experimented with smaller explosives on Nichols' farm in Michigan. Much of McVeigh's knowledge came from a mail order bomb-making manual entitled *Home Made C4*, which he purchased in the Spring of 1993. According to the prosecution, "This book provides essentially a step-by-step recipe as to how to put together your own fertilizer fuel-based bomb. And the book even provides helpful hints as to where to acquire the various ingredients, the components." The locations where McVeigh eventually purchased ammonium nitrate fertilizer and nitro methane were both suggested in this book.

On September 30th, 1994, McVeigh and Nichols purchased a ton of ammonium nitrate from the McPherson branch of the Mid-Kansas Co-op using the names "Mike Havens" and "Terry Havens." They needed two tons but feared such a large purchase would create suspicion. On October 2nd, McVeigh and Nichols stole explosives from the Martin Marietta Aggregates Rock Quarry in Kansas, near Nichols' home. In total, they stole more than 500 electric blasting caps, seven cases of Tovex explosives (which would later serve as a booster to help ignite the IED's main charge), and 80 spools of shock tube, or ignition cord.[8] Using his real name, McVeigh rented a storage locker in Kingman, Arizona on October 4th, 1994 for the stolen explosives. This was largely funded through McVeigh's actions on the gun show circuit, where he sold anti-government T-shirts, hats, bumper stickers, and guns (often illegally). On October 18th, Nichols bought the second ton of ammonium nitrate using the same

[8]McVeigh later cut the electric blasting caps from the plan because he felt the risk of static electricity accidentally setting off the bomb was too high.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

pseudonym at the same store as the September 30th purchase. The ammonium nitrate was then kept at a rented storage unit in Herington, Kansas.

Originally, McVeigh wanted to use anhydrous hydrazine, a potent rocket fuel, to mix with the ammonium nitrate fertilizer. After making several calls to chemical companies using a phone card under the alias Daryl Bridges, McVeigh was unable to find a sufficient supply of anhydrous hydrazine at an affordable price. Realizing he could use a different chemical, McVeigh changed his plan to nitro methane, a motor-racing fuel. On October 21st, McVeigh attended a drag race in Dallas, Texas. There he met with Racing Fuels employee Tim Chambers, and asked for fuel so that he and his friends could ride motorcycles back home. McVeigh purchased three fifty-five-gallon drums of nitro methane for between $925 and $2,775 (dependent upon which source is used).

On November 5th, 1994, McVeigh convinced Terry Nichols to rob a gun dealer in Arkansas who had once been a friend of McVeigh. Nichols stole an estimated $60,000 in valuables and weapons from Roger Moore, justified by McVeigh as capital for the bomb expenses. Nichols stored the stolen guns in a locker in Council Grove, Kansas. Heavily influence by the attack on the J. Edgar Hoover FBI building in Earl Turner's *The Turner Diaries,* McVeigh decided to bomb a government building. Unlike Turner's location in Washington DC, McVeigh wanted to hit the heartland of America. His initial list included possible targets in Arkansas, Missouri, Oklahoma, Arizona, and Texas. Ultimately, he decided on the Alfred P. Murrah Federal Building in Oklahoma City because he understood that it held offices for the ATF, Drug Enforcement Administration, and Secret Service, thereby providing maximum federal government causalities. Additionally he believed the U-shaped glass building would be easily damaged with a bomb placed inside the "U." On December 15th, McVeigh and Fortier set out to Kansas to pick up the stolen guns from the locker in Council Grove. On the way there, they drove through Oklahoma City to scope out the Murrah building and surrounding area for suitable locations for the getaway car.

Now that McVeigh had chosen a location, he needed to choose a day. April 19th was chosen for two reasons. First and foremost, it was exactly two years to the day after

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

the tragic incident at Waco. Secondly, it was exactly 220 years after the "shot heard round the world" at the Battle of Lexington and Concord, the first military battle between the Patriots and the Loyalists in the American Revolutionary War.

McVeigh needed a fake drivers license to rent the Ryder truck, which Michael Fortier's wife, Lori Fortier, helped him laminate. The alias on the license was Robert D. Kling, born April 19, 1972. On April 14, 1995 around 4pm, McVeigh checked into the Dreamland Motel in Junction City, Kansas; he used his real name but gave the Nichols' farm as his address. Since McVeigh was having problems with his current Pontiac station wagon, he decided to purchase a new getaway car. McVeigh purchased a 1977 Mercury Marquis from Tom Manning at the Firestone Service Center for $250 in Junction City, Kansas. McVeigh left Nichols' home address and telephone number on the bill. McVeigh then used his phone card to reserve a twenty-foot Ryder truck from Elliot's Truck Agency. During the phone call, McVeigh stated that he needed a vehicle capable of carrying 5,000 pounds. He used the alias "Bob Kling" for the one-way rental to Omaha, Nebraska. On April 15th, McVeigh completed the requisite paperwork for his truck rental and paid $280.32 in cash. He did not buy insurance. On April 16th, Nichols drove to Oklahoma City to meet McVeigh and help him with the getaway car. McVeigh parked the car in an alley very close to the Murrah Building and placed a sign that said, "Not abandoned. Please do not tow. Will move by April 23 (needs battery and cable)." Then McVeigh rode with Nichols back to Kansas. On April 17th, McVeigh picked up the Ryder truck at 4:20pm, and returned to the motel in Junction City.

On April 18th at 9am, McVeigh drove the truck to the storage unit at Geary Lake, Kansas, where he met Nichols. There the two men set to work creating the bomb. They mixed the nitro methane with each of the fifty-pound bags of ammonium nitrate fertilizer in the 55-gallon drums, using a bathroom scale for measuring. McVeigh placed the barrels in a "T" configuration so that he would not break an axle or flip the truck over. Once everything was mixed, McVeigh began working on the dual-fuse system. He drilled two sets of holes through the cab and the cargo box. Then he ran plastic fish-plank tubing through the holes, creating a two-minute fuse and a five-minute fuse as backup. At the end of each fuse, he placed non-electric blasting caps. He also placed blasting caps onto two lines of shock tube so that when the caps

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

exploded they would instantly spark the Tovex, which was placed in the center drum at the intersection of the T. The bomb took over three hours to construct. At one point, work had to stop because there were passersby. McVeigh then made his way to Oklahoma City, disposing of the clothes he wore while mixing the explosives along the way. He stayed overnight in a roadside motel.

Event Execution Stage

The bombing occurred the following morning, April 19th. The original plan was for the bomb to detonate at 11am. On the morning of the bombing, McVeigh decided that waiting that long was too risky, so he moved the time forward to 9am. McVeigh felt that by 9am, there would be a requisite number of bystanders who could be killed in the bombing. McVeigh's intention to maximize the number of killings came through in his alleged statement to his defense attorneys that he "would not have gotten the point across to the government" without a heavy casualty toll. At 7am, he left the motel where he had stayed overnight. He entered Oklahoma City at approximately 8:50am. Shortly after, he pulled his truck to the side to ignite the five-minute fuse. A block from the Murrah building, he stopped at a traffic light and lit the two-minute fuse. He accelerated slowly, fearing that sudden movement would prematurely detonate the bomb. The front parking area of the Murrah building was empty so he parked in front of the building, checked the fuses, locked the truck, and walked away.

McVeigh walked about 150 yards before he felt the explosion. The explosion created a crater twenty feet wide and eight feet deep. The bombing killed a total of 168 people: 163 were inside the building during the explosion. At least 500 people were injured.

Post-Event Activity and Strategic Analysis

McVeigh made it to the Mercury Marquis and was on the road by 9:10am, eight minutes after the bombing. At approximately 10:20am, McVeigh was pulled over 80 miles north of the bombing by trooper Charles Hanger for driving without a license plate. Hanger searched the car and arrested McVeigh for carrying an unregistered gun. McVeigh was held at the Noble County Jail in Perry, Oklahoma. Meanwhile, the

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

police had found the vehicle ID number from the Ryder truck's axle and traced it back to Robert Kling. Two days later, McVeigh was transferred to federal custody on federal bombing charges.

There is very little evidence of McVeigh's post-event strategic analysis. McVeigh's published letters, to a large extent, do not go into much detail about this issue. Operationally, he viewed the bombing as successful. Strategically, he was unsure of the long-lasting impact of the bombing. McVeigh felt that he left his fellow Americans with "the choice to try to learn from me or…choose to remain ignorant, and suffer the consequences."

Floyd Lee Corkins

On August 15th 2012, Corkins entered the offices of the conservative lobbying group, the Family Research Council (FRC) with the intention of "killing as many people as I could".[9] Corkins managed to injure a security guard before being overpowered and held at gun-point until the police arrived. A list found on Corkins suggested he also planned to target three other social conservative advocacy groups.

Decision and Search Activity Stage

The government's sentencing memorandum highlights that Corkins acknowledged that he wanted to engage in violent activism for a long time. His parents told the FBI that he "has strong opinions with respect to those he believes do not treat homosexuals in a fair manner". It is also known that Corkins suffered with mental health issues (including major depressive disorders and psychotic features) throughout his adult life. Six months prior to his violent action, Corkins voluntarily committed himself to a mental hospital because he suffered from hallucinations and "thoughts of killing his parents and conservative right-wing Christians". He left a month later and continued counseling and medication. This is not to suggest however that there is a

[9] Cited in the government's sentencing memorandum - http://msnbcmedia.msn.com/i/MSNBC/Sections/NEWS/z-pdf-archive/20130919_Corkins_Sentencing.pdf

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

clear link between this illness and his decision to engage in violence. There are also no publicly available details on what helped transition Corkins from years of thinking about conducting violence, to actually preparing a violent act.

Preparation Stage

Floyd Lee Corkins originally planned to conduct a bombing attack but told police he "didn't have the patience for it". The vast majority of planning and preparation occurred in the week prior to the attempted attack. On August 7th, while browsing online Corkins identified Blue Ridge Arsenal in Chantilly, Virginia as a suitable location to purchase firearms. On August 9th, Corkins perused for firearms at the Blue Ridge Arsenal. The following day he returned and purchased a semi-automatic pistol and received two-hours of free firearms training. On August 12th, he visited the Southern Poverty Law Center's website and identified the FRC as being anti-gay. He also visited the websites of the FRC and the other three advocacy groups. The FRC's website states that its mission is to "shape the public debate and formulate public policy that values human life and upholds the institutions of marriage and the family". He then printed MapQuest and Google map directions to the FRC and one of the other groups. Upon his later arrest Corkins made various statements like "I don't like the organization and what it stands for" and "I don't like these people, and I don't like what they stand for". On August 13th, he rehearsed the journey to the FRC. In his own words, he was "basically tying to go over exactly what I was gonna do" on the day of the attack. He managed to access the lobby of their office by telling the receptionist he was there to meet an FRC employee and provided a fake name. The receptionist checked the employee directory, failed to find someone with the provided name, informed Corkins and he, in turn, exited the lobby. On August 14th, Corkins visited a branch of Chick-fil-A and bought fifteen chicken sandwiches. He intended to smear these sandwiches in the face of his victims "to make a statement against the people who work in that building…and with their stance against gay rights and Chick-fil-A. They endorse Chick-fil-A and also Chick-fil-A came out against gay marriage so I was going to use that as a statement". A Chick-fil-A executive, two months earlier, had expressed his opposition to same-sex marriage. Later that day, Corkins purchased a black backpack at K-mart that was eventually used to conceal his firearm and ammunition on the day of the attack. On the evening of August 14th, Corkins returned to the Blue Ridge Arsenal and purchased and took part in another two hours of

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

firearms training with the weapon he purchased days earlier. Later that night, he loaded three magazines for the violent event he planned to conduct the following day.

Event Execution Stage

On the morning of August 15th, Corkins drove his family's car from his hometown of Herndon, Virginia to the East Falls Church Metro Station. There, he took the Metro into the District of Columbia. After departing the Gallery Place Metro stop, he loaded the Sig Sauer P229 semiautomatic he purchased six days prior. He then walked to the FRC's headquarters, arriving at 10.46am. He gained access to the building claiming to be there for an interview for an internship. Upon entering the building, an unarmed security guard seated at reception asked to see Corkins' identification. Corkins pulled a handgun from his backpack and pointed it at the security guard. The security guard rushed at Corkins and in the ensuing struggle Corkins shot three times, one of which hit the guard's arm. Despite this injury, the guard managed to overpower and subdue Corkins until the Metropolitan Police Department arrived. The police searched Corkins and found two fully loaded magazine clips, 50 rounds of 9mm ammunition, 15 Chik-fil-A chicken sandwiches and a handwritten list including the names of four organizations including the FRC that Corkins previously researched online.

Post-Event Activity and Strategic Analysis

There is no publicly available information with regards to this stage.

Abdulhakim Mujahid Muhammad

At 10.19am on June 1st 2009, Abdulhakim Mujahid Muhammad (formerly Carlos Bledsoe) conducted a drive-by shooting on soldiers outside of a U.S. military recruitment office in Little Rock, Arkansas, killing one and injuring one.

Decision and Search Activity Stage

Muhammad acknowledges membership in a gang prior to his conversion to Islam in 2004 (http://www.commercialappeal.com/jihad/competency-evaluation/). He left

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

school at 12th grade and experienced a number of suspensions previously because of fighting. Gartenstein-Ross' (2014) in-depth case study of Muhammad utilized police and court records that illustrated how Muhammad had previously come into contact with authorities in relation to (1) a 2002 fight with another former gang member (2) a 2002 altercation that involved a knife being pulled (3) a 2003 car crash to which Muhammad reacted by first running to the other driver's vehicle and "hitting the rear passenger window with chrome-plated brass knuckles. Muhammad yelled, 'Bitch I'm gonna kill you, get out, I'm going to kill you when I get your address" (Gartenstein-Ross, 2014:113) (4) a 2004 incident in which police found Muhammad in a car alongside a SKS assault rifle and a single-shot shotgun that Muhammad claimed he was selling to an individual who successfully fled from police. He was also found in possession of a bag of marijuana. All of these events occurred before he turned 20. He converted to Islam soon after being charged and receiving a 14-year suspended sentence for the unlawful weapons and drug possession offence.

In his justification statement, Muhammad states: "There's an all out war against Islam and Muslims in Afghanistan, Pakistan, Waziristan, Chechnya, Somalia, Palestine, Phillipines, Yemen etc. And Muslims have to fight back…We believe in an eye for eye not turn the other cheek. Now it's all out war on American and I'm on the other side. The side of the Muslims – Yes! The side of Al-Qaeda – Yes! Taliban- Yes! Al-Shabaab – Yes! We are all brothers under the same banner. Fighting for the same cause which is to rid the Islamic world of Infidel and Apostate Hypocritic [sic] regimes and Crusader Invaders and re-establish the Caliphate, the Islamic Empire and Islamic Law as was ended officially in 1924 by the fall of the Ottomans" (cited in Gartenstein-Ross, 2014:118). Here, Muhammad not only aligns with and portrays himself as being the same as Al-Qaeda, the Taliban and Al-Shabaab, he also places himself in a long historical narrative of resistance that has been ongoing since 1924.

In September 2007, he left the U.S. for Yemen ostensibly to learn Arabic. During this time, he apparently radicalized further. He desired entry into Somalia to obtain militant training. Before he could leave, Yemeni authorities arrested him in October 2008. He returned to the U.S and to his hometown of Little Rock in January 2009.

Preparation Stage

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Upon his return to the U.S., Muhammad began planning an attack. He researched potential targets online including military facilities, Jewish centers, a post office, a Baptist church and a childcare center. These targets were geographically spread and included Little Rock, Memphis, Nashville, Florence, Kentucky, Philadelphia, Baltimore and Washington D.C

He claims the eventual attack "wasn't part of Plan A. Plan A was aborted because of failed attacks in Tennessee and Kentucky". In Nashville Tennessee, his attempt to firebomb a Rabbi's house failed when the Molotov Cocktail bounced harmlessly off the window rather than smashing through it. In Florence, Kentucky a drive-by shooting at an Army recruitment center was called off when he realized it was closed as he arrived.

So, the eventual attack at "the Crusader Center in Little Rock was Plan B. And compared to what I had planned originally, it was like a grain of sand. One crusader dead, one wounded, 15 terrorized, big deal. Nidal Malik is the real Islamic Warrior, and my plan A was on that scale. It included Little Rock, Memphis, Nashville, Florence KY, Philadelphia, Baltimore, and was supposed to end in DC." He also lamented his failure to obtain bomb-making training in Yemen or Somalia. "I wanted training in explosives, on how to make bombs and in particular, car bombs, and had I got this training my story would have ended a lot differently than it's going to end now. My drive-by would have been a drive-in, with none escaping the aftermath"[10].

He bought a series of firearms second-hand. Finally, he bought a .22 rifle "over the counter at Wal-Mart to test if I'd get caught or questioned". It was a "test to see if I was under surveillance". Once the new gun was purchased, he thought to himself "It's on…Meaning, I'm not under surveillance. The FBI had not put a hold or checked" (http://www.commercialappeal.com/jihad/competency-evaluation/).

[10] Scanned copies of these Muhammad's correspondence with Katrina Goetz can be found at http://www.commercialappeal.com/jihad/

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

The night before his attack, he watched a number of jihadist videos online. Muhammad attributed one particular video as the sole reason for his shooting. "I started seeing more pictures of just women being raped you know, gang raped and you know it's one woman named Fatima, she's in a prison so she got raped more than nine times on one day and she was wanting to kill herself and you know it was just – it was a point of insanity, I … I think is what happened and I just like blacked out you know. And…and I just kind of went insane all of a sudden". This is a highly unlikely scenario given the extensive planning it took to become as equipped with firearms as Muhammad became.

Event Execution Stage

On the morning of June 1st, Muhammad drove to the recruitment center at Little Rock and fired a semi-automatic rifle at two individuals having a cigarette outside the center. He shot both and continued firing at the center, hoping to hit at least some of the 15 individuals located inside. Muhammad fled the scene in his vehicle. Police apprehended him eight miles from the attack location. He was in possession of two rifles (one with a scope and laser sight), two handguns (one semi-automatic), 562 rounds of ammunition, homemade sound suppressors, and binoculars. Police also found Molotov Cocktails in his home.

Post-Event Activity and Strategic Analysis

There is no publicly available information with regards to this stage. However, following his arrest, Muhammad's violence continued in jail. On one occasion he stabbed a fellow inmate, on another occasion the victim was a prison guard. He used a shank both times. Muhammad has also been associated with a number of threats against prison staff and repeatedly vandalizing his cell.

Eric Rudolph

On July 26th 1996, Eric Rudolph committed a bombing attack at the 1996 Atlanta Olympics. The bombing killed one civilian and injured a 111.

Decision and Search Activity Stage

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Over the course of 18 months, Rudolph bombed two abortion clinics, the Atlanta Olympics and a lesbian bar. He carried out all of the planning, preparation and actions alone. Yet, in his numerous writings throughout the bombing campaign, during his sentencing and while in prison, Rudolph depicts himself as part of a wider movement of anti-abortion activists. As noted by Seegmiller (2007), between 1973 (when abortion was legalized in the U.S.) and 2007, over 200 abortion clinics were bombed or set on fire and over 4000 acts of violence were carried out or threatened against abortion providers. Rudolph sees himself as just one component of what is a wider movement of committed action. He "frames his activism and identity as connected to an amorphous milieu of violent, radical anti-abortion activists who largely draw upon religious authority, biblical language, and apocalyptic narratives to frame and justify their activities" (Seegmiller, 2007: 521). Indeed, Rudolph's writings are hosted on the Army of God website including his 240 page autobiography which suggests they view him as one of their own also. The autobiography states that Rudolph's goal was to overthrow an illegitimate government but he acknowledges "Naturally, I couldn't do it alone. I had no delusions on that score. I had to somehow encourage others to help…The hope was that my actions would push other pro-lifers and Patriots to bridge the gap between their rhetoric and their actions" (Rudolph, 2013:5-6). Rudolph had also grown quite skeptical of how effective the pro-life movement had become while it remained on a non-violent course. "The masters of the media have censored the pro-life movement out of the mainstream society. The protestors…might as well be on the moon as far as most Americans are concerned. I was planning my own protest for the anniversary of Roe v. Wade. Unlike other protests, mine wouldn't be ignored. I planned to blow Northside Family Planning off the map" (Rudolph, 2013:27).

During the Spring of 1995, Rudolph decided to turn to violence. He decided to "carry out a series of high profile attacks against symbols of the regime: abortion mills, Sodomite organizations, left-wing interest groups, and agents of the Washington government…These attacks were not part of some personal vendetta against abortionists, homosexuals, or government agents; they were acts of war aimed at damaging, undermining and ultimately, overthrowing the liberal establishment in America. When I heard they were bringing the Summer Olympics to Atlanta, I thought it would make the perfect target" (Rudolph, 2013:6).

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

On the Atlanta Olympics bombing, Rudolph's justification states:

> "In the summer of 1996, the world converged upon Atlanta for the Olympic Games. Under the protection and auspices of the regime in Washington millions of people came to celebrate the ideals of global socialism/ Multinational corporations spent billions of dollars, and Washington organized an army of security to protect these best of all games. Even though the conception and purpose of the so-called Olympic movement is to promote the values of global socialism, as perfectly expressed in the song Imagine by John Lennon, which was the theme of the 1996 Games even though the purpose of the Olympics is to promote these ideals, the purpose of the attack on July 27 was to confound, anger and embarrass the Washington government in the eyes of the world for its abominable sanctioning of abortion on demand. The plan was to force the cancellation of the Games, or at least create a state of insecurity to empty the streets around the venues and thereby eat into the vast amounts of money invested."

The decision to act alone was simple. He outlined that he had "been around long enough to know the pitfalls of collaboration" (Rudolph, 2013:6). He later lamented the lack of help during his fourth bombing (the one that led to his capture): "Oh, how easy it would be if I had a partner…Though working alone had its advantages, namely, there was nobody to rat me out, it also made a quick execution and getaway more difficult" (Rudolph, 2013:42). It also appears he was inspired by other lone actors. In his autobiography, Rudolph begins the Olympics bombing chapter with two paragraphs telling the story of Paul Hill. For Rudolph, Hill "seemed like a perfect anomaly, a genuine American hero in an age of cowardice. I'd read about such people in history books, but I didn't think they existed anymore. I knew then that the era of hot air was over. People were finally bridging the gap between their rhetoric and their actions. I knew then it was time for me to act as well" (Rudolph, 2013:3).

Preparation Stage

In June 1996, Rudolph left his hometown and rented a trailer forty miles west. Rudolph initially wanted to bomb Atlanta's power grid during the Olympics rather than place a bomb at the Olympics itself. He dropped this plan because "making enough charges to disable Atlanta's power grid would take too much time and money. I had neither. The Olympics was fast approaching, and I needed to come up with a new plan" (Rudolph, 2013:7). Instead he turned to smaller pipe bombs. Rudolph "drove 100 miles to Gadsden, Alabama, where I bought pipes, alarm clocks, batteries,

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

and circuit wire. Then I drove a little more, hoping to make my activities hard to track" (Rudolph, 2013:7). In total, he spent six weeks manufacturing and testing his IEDs. During this time Rudolph feared that his landlady, who searched his trailer on a number of occasions, could have rumbled his preparations. The opportunity to test these IEDs in the "remote hollows along the North Carolina-Tennessess border" undoubtedly helped Rudolph's plot develop from a technical standpoint (Rudolph, 2013:7).

A couple weeks prior to the eventual bombing, Rudolph surveilled security at the Olympics. For this task, he wore a light disguise. He noticed "there were no metal detectors, and bags were searched selectively. After sundown the crowds grew enormous. Upwards of a hundred thousand people packed into Five Points. Security at the park became overwhelmed. They stopped searching bags altogether, and the entrances flew wide open. I knew then that I could smuggle in a bomb" (Rudolph. 2013:10).

Rudolph pushed back the date of his initial IED attack on the Atlanta Olympics when his truck was broken into and a window was smashed in the process. Rudolph feared police pulling him over for the broken window so he fixed it before he could use the truck to transport his pipe bombs to the target site (Rudolph, 2013:11).

Rudolph also slept rough the nights before the bombing hoping to avoid the CCTVs installed at hotels.

Rudolph's last task before setting off to bomb the Atlanta Olympics was to bury an emergency cache in the woods that contained enough food, oil and camping equipment to allow him to survive for a year.

Event Execution Stage

On the night of the bombing itself, a third-party took a picture of a water fountain at the Olympic Park. Rudolph was convinced he also was in the picture and in his autobiography admits that this was enough to engender "several tense moments of indecision" and the "strong urge to flee" without priming and detonating the IED (Rudolph, 2013:13-14). Rudolph claims the plan was to disrupt the Olympics, not for

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

the bomb to detonate. After priming the device, he sought to leave a warning with police from a pay phone. Rudolph notes: "Quickly, I stuffed each nostril with wet toilet tissue and slipped on my pair of gloves and pulled a little plastic funnel from my pocket. The tissue and funnel should help distort my voice. 'Atlanta – nine – one – one' said the woman operator. 'Do you understand me?' I asked. 'Yah'. 'We defy your…' suddenly the line went dead". Rudolph's attempt to provide a justification alongside the warning failed. Rudolph then left that scene and found another set of payphones close by "but the street was packed with people. Groups of tourists shuffled past me. I waited. Agonizing minutes were wasted. A break in the crowd developed. I faced the other way and found a phone. 'Make it quick; just a flat warning; no statement' I told myself" (Rudolph, 2013:14). Without leaving the justificatory message, Rudolph acknowledges that the bombing "sent the wrong message. Aimed at Washington and the corporate sponsors, the bombing came off as an indiscriminate attack on innocent civilians. I would see to it that never happened again. From now on I'd choose specific targets" (Rudolph, 2013:21).

Post-Event Activity and Strategic Analysis

In his sentencing remarks for the Olympics bombing and in his autobiography, Rudolph refers to the victims as "innocent civilians" and that he felt "much remorse" because of the "fatal decision", "horrible mistake" and "dangerous tactic" of planting the bomb in a crowded area, calling in an advanced bomb warning, and hoping that the area would be cleared of civilians.

This 'mistake' did not dissuade Rudolph from violent action however. In the months preceding the Atlanta bombing, Rudolph also bombed two abortion clinics and a lesbian bar (which reflects with his theorizing that only specific targets should be hit in order for the violence not to be message-less like the Olympics bombing). The second abortion clinic bombing killed a security guard and critically injured a nurse. In his sentencing remarks for the abortion clinic fatalities, Rudolph commented "I did not target them for who they were – but for what they did. What they did was participate in the murder and dismemberment of upwards of 50 children a week". In Rudolph's eyes, these were legitimate targets.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Rudolph gave up on producing enough explosives for the main charge of his later IED attacks, stating that the effort was "not worth the cost in time, money and brain cells" (Rudolph, 2013:22). Instead, he turned to stealing commercial explosives from quarries and an explosives manufacturer.

Scripting Lone actor Terrorist Events

Figure 5.1 below outlines a diagram of the lone actor terrorist event script. It highlights the complexity of the first two stages, particularly the preparation phase.

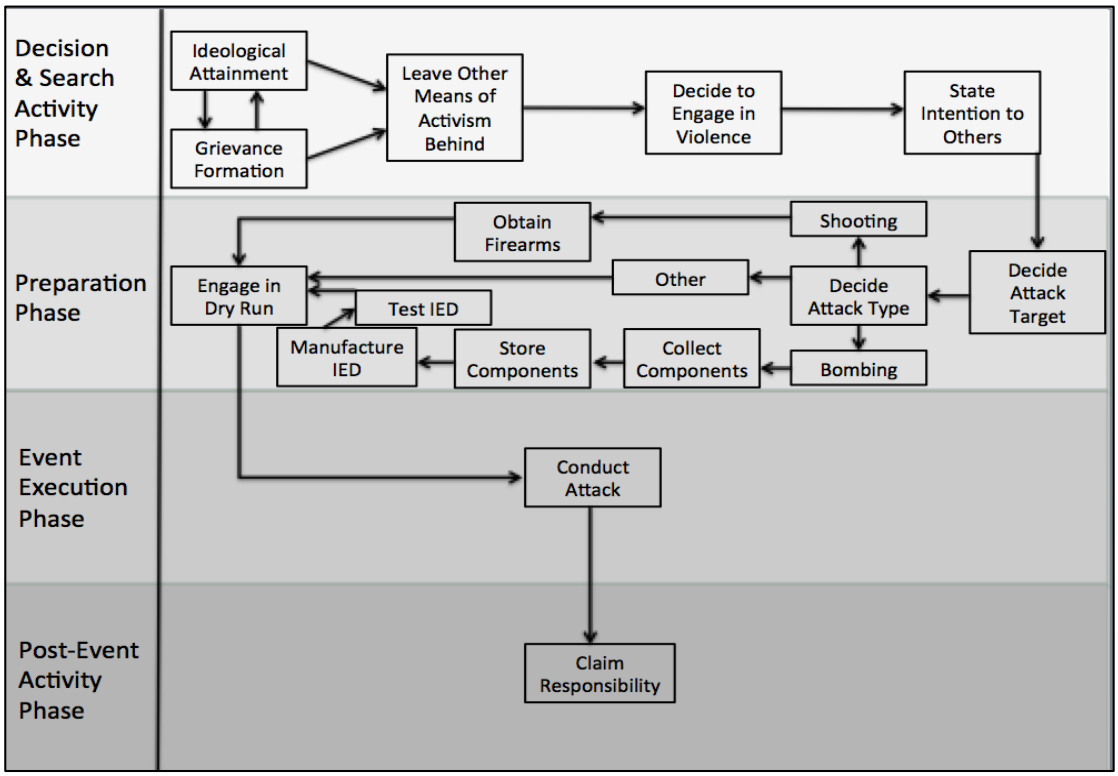


Figure 5.1 Lone Actor Attack Script

Solo Terrorists

Faisal Shahzad

On the evening of May 1, 2010, Faisal Shahzad, a 30 year-old U.S. citizen, drove an SUV rigged with an improvised explosive device (IED) into a still-crowded Times Square in New York City. He parked the vehicle, activated the bomb, and walked away. Police were alerted, the IED was safely dismantled, and there were no casualties.

Decision and Search Activity Stage

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Born in Pakistan in 1979; his father is a retired Pakistani Air Force official who provided an upper middle-class lifestyle for his family, with chauffeurs and servants.

In January 1999, Shahzad was granted a student visa and came to the U.S., enrolling in college in Washington, D.C., and later transferring to the University of Bridgeport in Connecticut, from which he graduated with a Bachelor's degree in computer science. In April, 2002, Shahzad received another three-year visa, and he started graduate studies at the University of Bridgeport. Here Shahzad worked toward an MBA alongside working in accounting at the global cosmetics firm Elizabeth Arden. Upon graduating Shahzad found work as an analyst at the financial marketing firm Affinion Group. During this time, Shahzad bought and sold a condominium in Norwalk, Connecticut and then bought a house in Shelton, Connecticut. In 2004, Shahzad married Huma Mian, a 23 year-old accountant from Denver, Colorado.

By 2006, friends noticed that Shahzad became more religious and distanced himself from what he considered the liberal 'elite' world of his father. He stopped drinking alcohol, prayed five times a day, and began frequenting Mosques in Stamford, Norwalk, and Bridgeport. In February 2006, Shahzad's ideological fervor was more open noticeable. In an email to a group of friends, Shahzad's distress regarding the wars in Iraq and Afghanistan, and the publication in Denmark of cartoons ridiculing the Prophet Mohammed was clearly evident:

> "It is with no doubt that we today Muslim, followers of Islam are attacked and occupied by foreign infidel forces. The crusade has already started against Islam and Muslims with cartoons of our beloved Prophet PBUH as War drums… Everyone knows how the Muslim country bows down to pressure from west [sic]. Everyone knows the kind of humiliation we are faced with around the globe."

In other e-mail messages, Shahzad argued that the West is at war with Islam, and that Muslims have strayed from their religious duty to fight back. The Internet messages of Anwar al-Awlaki reportedly inspired his devout, radical behaviors. During a visit to Pakistan in 2008, Shahzad asked his father for permission to

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

fight in Afghanistan, a request his father denied.

In an April 2009 ceremony at the federal courthouse in Bridgeport, Connecticut, Shahzad became a U.S. citizen. It was around this time that Shahzad appeared to be struggling financially, complaining to a friend that he found it stressful to keep up with mortgage payments. Others noticed strains in his marriage. He pressured his wife to wear a hijab, and insisted that she should not work, despite their financial issues. In February 2009, Shahzad obtained a $65,000 equity loan. In June, Shahzad stopped paying his mortgage and other bills, and on 2nd June, 2009, he and his family left the U.S.

Preparation Stage

After departing the U.S. for his hometown in Pakistan, Shahzad abruptly left his family on 9th December, 2009, and travelled to Taliban training camps in North Waziristan where he received bomb-making training from trainers affiliated with Tehrik-e-Taliban. It was during this time the plot was devised. Shahzad also met with a member of Lashkar-e-Taiba, the group responsible for the attacks on the Indian city of Mumbai in 2008. Shahzad requested money from Tehrik-e-Taliban, and received $4,000. Shahzad later claimed to have met with Taliban leader Hakimullan Mehsud and that the attack on Times Square was retribution for Mehsud's death in a drone strike.

On February 2nd 2010, Shahzad returned to the U.S. on a one-way ticket from Pakistan. Due to the recent "underwear bomber" scare in December 2009, he was subjected to extra screening by U.S. Customs. During this conversation, Shahzad stated to officials that he had been in Pakistan for five months, and he indicated that he intended to stay at a hotel in Connecticut whilst he arranged for more permanent work and living arrangements. Shahzad provided a telephone number (which belonged to a pre-paid mobile that was activated on 16th April 2010). Shahzad then spent three weeks looking for more permanent accommodation, where he could have privacy to carry out the preparation.

Shahzad received two monetary donations from a member of Tehrik-e-Taliban during

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

the preparation stage. The first occurred on 25th February, 2010. Shahzad received $5,000 in cash in Massachusetts. The second occurred on 10th April, 2010, in Ronkonkoma, New York, and totaled $7,000. Shahzad admitted that these donations were for purchasing the components for the attack.

On 15th March, 2010, Shahzad purchased a semi-automatic 9 millimeter Kel-Tec rifle in Connecticut.

In mid-April, Shahzad used the pre-paid mobile to approach an individual selling a 1993 Nissan Pathfinder. During the initial conversation Shahzad arranged to meet with the seller on 24th April in a Supermarket car park in Connecticut. The pre-paid mobile was contacted four times on the morning on 24th April, 2010, by a number in Pakistan. These phone calls highlight the extent to which Shahzad acted under direction of a larger group. It was after these calls were made that Shahzad rang the seller of the Pathfinder twice. Shahzad met with the seller, and purchased the vehicle for $1,300 using cash on the afternoon of 24th April 2010. Shahzad changed the registration plates, and tinted the windows following the transaction. On 25th April 2010, Shahzad again used the mobile to contact a fireworks store on Pennsylvania. These calls were all made prior to 28th April 2010, when the phone was cut off.

During April, 2010, Shahzad also purchased the various constituent parts of the IED, and used a garage at his residence to store them. Shahzad also reportedly carried out a dry run in the Pathfinder on 28th April, 2010, driving around to seek out the most appropriate place for the event.

Event Execution Stage

The IED consisted of three full propane tanks, two five-gallon gasoline canisters, several plastic bags containing fertilizer, 152 M-88 fireworks, and two alarm clocks connected to wiring.

Shahzad drove from Connecticut to New York on 1st May 2010. At 18:30 UTC, he attempted to detonate the IED in the Nissan Pathfinder vehicle at 45th Street and

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Seventh Avenue in Manhattan. He initiated the device, left the engine on, and walked to Grand Central Station, catching a train to Connecticut.

Post Event Activity and Strategic Analysis

A member of the public informed a mounted police officer of the presence of the unoccupied Pathfinder. When the officer approached the car, he observed smoke emanating from it, and he summoned assistance. The entire area was evacuated, and the NYPD bomb squad and fire department responded to the scene. When law enforcement officers searched the Pathfinder, a number of keys were recovered, including the key to an Isuzu Rodeo vehicle, and his Connecticut residence.

A video was posted online on 2nd May 2010. This video showed Shahzad explaining his reasoning behind his decision to act. It was narrated by Qari Hussain Mehsud, a chief bomb maker, and claimed that the Taliban in Pakistan was responsible for the attack. Two subsequent follow up videos were also posted on 3rd May 2010, showing meetings between Shahzad and Hakimullah Mehsud, and threatened further attacks against the U.S. and NATO allies.

Shahzad was arrested on May 3rd 2010 at 23:45 UTC at John F. Kennedy International Airport, as he attempted to leave the U.S. on a flight to Dubai. Subsequent to his arrest, Shahzad admitted to officers that he had attempted to detonate the device in Times Square, he had received training in Waziristan and Pakistan, and that he had driven a car to the airport on 3rd May, 2010, and that there was a gun in this car. Officer's recovered this car on 4th May, 2010, and found the Kel-Tec rifle.

During detention, Shahzad repeatedly waived his Miranda rights. He provided agents with details regarding ongoing movements of subjects of investigation, which led to arrests. He also admitted that had he not been arrested, he would have detonated another bomb in New York City two weeks later. Shahzad was indicted in federal court; an excerpt of his underlying intentions is given below:

> THE COURT: "Last year. Didn't you swear allegiance to this country when you became an American citizen?"
>
> SHAHZAD: "I did swear, but I did not mean it."

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

THE COURT: “I see. You took a false oath?”

SHAHZAD: “Yes.”

THE COURT: “Very well. Is there anything else you want to tell me?”

SHAHZAD: “Sure. I am ashamed that I belong to a slave country like Pakistan, who has accepted the slavery of the West from the day it was born. Bush had made already clear when he started the war on us, on Muslims, he said: You are either with us or against us. And so it's very clear for us Muslims, either we are with the mujahideen or we are with crusading losing Christians. There is no in between. Blessed be the immigrants and the leader Sheikh Osama Bin Laden, who will be known as no less than Saladin of the 21 century crusade and blessed be those who give him asylum.”

On 21st June, 2010, Shahzad pled guilty to all charges, and was sentenced to life in prison. He repeatedly expressed his total lack of remorse, and his desire to repeat the crime, if he were given the opportunity.

At his sentencing hearing on 5th October, 2010, Shahzad requested to make a speech prior to any decision. This was granted:

“In the name of Allah, the most gracious, the most merciful, this is but one life. If I am given a thousand lives, I will sacrifice them all for the sake of Allah fighting this cause, defending our lands, making the word of Allah supreme over any religion or system. We Muslims don't abide by human-made laws, because they are always corrupt… The sentence the judge will not mean anything to me, for how can I be judged when the Court does not understand the suffering of my people. They don't understand my side of the story, where the Muslim life of is no value. Therefore, the only true judgment will be on the day of resurrection when Allah will judge between me and you as to who is fighting for the just cause. So decree whatever you desire to decree, for you can only decree regarding the life of this world. The crusading U.S. and NATO forces who have occupied the Muslim lands under the pretext of democracy and freedom for the last nine years and are saying with their mouths that they are fighting terrorism, I say to them, we don't accept your democracy nor your freedom, because we already have Sharia law and freedom. Furthermore, brace yourselves, because the war with Muslims has just

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

begun. Consider me only a first droplet of the flood that will follow me… So let's see how you can defeat your Creator, which you can never do. Therefore, the defeat of U.S. is imminent and will happen in the near future, inshallah, which will only give rise to much awaited Muslim caliphate, which is the only true universal world order… We are only Muslims trying to defend our religion, people, honor, and land. But if you call us terrorists for doing that, then we are proud terrorists, and we will keep on terrorizing until you leave our land and people at peace. But if you don't, then I remind you that we have watches and we have time. We will defeat you with time."

Umar Farouk Abdulmutallab

On 25th December 2009, Abdulmutallab boarded Northwest Airlines Flight 253 from Amsterdam to Detroit. He ignited an incendiary device shortly before arrival in Detroit in an attempt to destroy the plane, and 289 individuals on board. There were no fatalities or serious injuries.

Decision and Search Activity Stage

Abdulmutallab reportedly became very pious in his religion during his teenage years in Nigeria. He spent his free time reading the Quran, and earned the nickname "Alfa ". Over 300 Internet postings under the handle "farouk1986" were identified. Abdulmutallab spoke of love, his future ambitions, and his inner struggle between liberalism and extremist as a devout Muslim. In January 2005, Abdulmutallab confessed:

> "I am in a situation where I do not have a friend. I have no one to speak too, no one to consult, no one to support me and I feel depressed and lonely. I do not know what to do and then I think this loneliness leads me to other problems…I get lonely sometimes because I have never found a true Muslim friend".

Abdulmutallab's postings display his gradual ideological changes towards more devout Islamic opinions and practices, and display his views of violence and extremism, without specific mention of his own choice to follow such behaviors.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

However, when Abdulmutallab enrolled in mechanical engineering at University College London in September 2005, his religious beliefs began attracting attention. Abdulmutallab became head of the campus branch of the Islamic Society in 2006, inviting controversial speakers, and former Guantanamo Bay inmates to attend functions. He regularly attended prayers at London Mosques monitored by the British security services. He was seen 'reaching out' to known extremists, and was noted as being 'on the periphery' of various investigations. He was not, however, considered a threat by British counterintelligence.

In June 2008 Abdulmutallab graduated and was granted a multiple entry tourist visa to the United States (U.S.). In January 2009, Abdulmutallab enrolled at the University of Wollongong, Dubai to study a business course. In August 2009, Abdulmutallab dropped out and travelled to Yemen, studying at the Sana's Institute for Arabic Language. At this time Abdulmutallab attempted to return to England, but his student visa request was refused. Abdulmutallab later explained that he travelled to Yemen to meet radical Imam Anwar al-Awlaki, after studying his preachings. Whilst attending a Mosque in Yemen, Abdulmutallab was introduced to 'Abu-Tarak', who was allegedly a member of Al-Qaeda, and during daily discussions, they discussed various ways to attack the U.S. In October 2009, Abdulmutallab travelled to the Shabwa Province, and attended an Al-Qaeda training camp, purportedly under the direction of al-Awlaki. In November 2009, Abdulmutallab agreed to become involved in an aerial martyrdom attack against the U.S. It was also during this time that Abdulmutallab contacted his parents, and hinted at his involvement in a movement. His father contacted CIA officials at the United States embassy in Nigeria, expressing concerns for his son.

Preparation Stage

Abdulmutallab claimed to have met the bomb maker, a Saudi Arabian individual, whilst in Yemen. The device, consisting of Pentaerythritol Tetranitrate (PEIN) and Triacetone Triperoxide (TATP), weighed approximately 200g. The device had no metal parts, and therefore would not alert airport security. Detonation was to be achieved by injecting liquid acid into the PEIN and TATP at a time of choosing. The device was designed to be part of Abdulmutallab's underwear. Prior to leaving

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Yemen, Abdulmutallab recorded a video. The video showed Abdulmutallab at a desert training camp shooting at targets including a Jewish star, the British Union Jack flag, and the initials "UN". Abdulmutallab's statement was only a portion of the video:

> "Oh, ye who believe, take not the Jews and the Christians for your allies and protectors. They are but allies and protectors to each other and he amongst you that turns to them is of them. Verily, Allah guides not a wrongdoing people… My Muslim brothers in the Arabian Peninsula, you have to answer the call of jihad because the enemy is in your land along with their Jewish and Christian armies. Allah, the most high… unless you go forth… He [Allah] will punish you with a grievous penalty and put others in your place. But him… you would not harm in the least."

Abdulmutallab was instructed to destroy a U.S. aircraft over U.S. territory, however he was given complete control over which airliner, and which flight. This highlights that he networked with others in an organization, yet acted alone. In December 2009, Abdulmutallab left Yemen, and flew then to Ghana, then Nigeria, then Amsterdam. Abdulmutallab wore the device in his underwear continuously from leaving Yemen. In the Netherlands, Abdulmutallab boarded Northwest Airlines flight 253 to Detroit on 25th December 2009. Abdulmutallab had attempted to book onto flights to Houston, Chicago, and California, and told travel agencies numerous false scenarios in order to secure a flight. Whilst passing through U.S. preclearance Abdulmutallab provided false information and details to customs officers. When Abdulmutallab boarded the plane, he engaged in rituals, he fasted and spent an extended period of time in the airplane toilet, purifying himself.

Event Execution Stage

Abdulmutallab returned to his seat, explained to his neighboring passenger that he felt unwell, and covered himself with a blanket. At 11:44 EDT, Abdulmutallab pressed a button to detonate the device. Several passengers reported hearing a loud pop, which reportedly sounded like a firecracker. The TATP in the device did explode, but the PETN failed to ignite, the result of which was a small fire, which engulfed Abdulmutallab's groin area, and spread to the carpet, walls, and seat. Passengers

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

restrained Abdulmutallab, and removed him from seat 19A (a window seat on the wing), walked him down the plane, and placed him in seat 1G, where he could be monitored. Abdulmutallab's clothing and shoes were removed, and he was given a blanket to cover himself with. The captain was informed of a fire, and brought Flight 253 into a steep descent, and landed the plane at 11:49 EDT.

Post Event Activity and Strategic Analysis

Whilst the plane was being brought into Detroit airport, Abdulmutallab spoke to a passenger and a steward who sat with him to ensure he would carry out no further disruption. Abdulmutallab explained that he had triggered an explosive device on his person. Abdulmutallab proceeds to tell each individual he came into contact with what his actions were. The conversation with the U.S. customs officer is detailed below:

Officer Steigerwald: "What is going on? What were your intentions on the flight?"

Abdulmutallab: "To bring down the airplane."

Officer Steigerwald: "Who are you involved with?"

Abdulmutallab: "Al-Qaeda."

Officer Steigerwald: "Where did you get the device?"

Abdulmutallab: "Yemen, in the Middle East."

Officer Steigerwald: "Who are you involved with?"

Abdulmutallab: "I'm with al-Qaeda."

Officer Steigerwald: "What kind of device was it?"

Abdulmutallab: "A bomb."

Officer Steigerwald: "What were your intentions?"

Abdulmutallab: "To bring the plane down over U.S. soil."

Officer Steigerwald: "Where did you have the device?"

Abdulmutallab: "In my underwear."

Abdulmutallab is then transported to the University of Michigan Hospital, during transportation he has a conversation with a paramedic:

Jessica Worsley: "Where's that powder from?"

Abdulmutallab: "There was a syringe and they told me to push the syringe in the

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

stitching of my clothing"
Jessica Worsley: "Who is they?"… "Were you trying to commit suicide or harm yourself?"
Abdulmutallab: "Yes"

Abdulmutallab arrives at the Hospital at 12:25 EDT. A conversation Abdulmutallab had with a nurse between 14:30 and 15:00 EDT was also recorded:

Julia Longenecker: “Have you ever thought about harming yourself or others?”
Abdulmutallab: “No”
Julia Longenecker: “Well, what about what happened on the plane today? Didn’t you try to harm yourself or others?”
Abdulmutallab: “That was martyrdom.”

At the hospital, Abdulmutallab has a converses with Dr. James Pribble. He describes how the bomb worked, and that he injected a syringe into powder, and it triggered the explosion. Abdulmutallab also requested that Christmas music playing throughout the hospital to be turned off.

At 15:35 EDT, when Abdulmutallab had been sufficiently treated at the Hospital, two FBI agents, Special Agent Peissig, and Timothy Waters interviewed him. The interview lasted between 45 and 50 minutes, during which Abdulmutallab explained the entire plot. Abdulmutallab told the agents that he went to Yemen in order to become involved in the jihad against the U.S. He explained that he tracked down and found Al-Qaeda, he explained his introduction to Abu-Tarak, and their daily conversations regarding plans to attack the U.S. Abdulmutallab went on to explain how the suggestion to target a U.S. plane was put into action. He spoke at length of meeting with the Saudi Arabian bomb maker, and the engineering behind the device. Abdulmutallab then detailed his travel from Yemen to the U.S.

The martyrdom video – titled “America and the Final Trap”- that Abdulmutallab recorded prior to leaving Yemen was released following the attack. In the video, Al-Qaeda claimed responsibility for the attack, explaining how the bomb defeated Western airport security, and why Abdulmutallab turned to jihad.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

During forensic testing of what remained of the device, officials found fingerprints on the underside of the tape that held the bomb together. The fingerprints were not Abdulmutallab's, and it was concluded they were left by another individual who assembled the device. This corroborates Abdulmutallab's statements regarding the Saudi Arabian bomb maker. Forensic experts also found an encryption code for communication with Al Qaeda written on a slip of paper, in Abdulmutallab's shoe. It was purported that Abdulmutallab used this encryption code to communicate with someone just prior to boarding the plane.

Abdulmutallab's initial court appearance was 26th December 2009, he agreed to be represented by the Federal Public Defender's Office. However, on 13th September 2010, Abdulmutallab informed the pre-trial hearing that he wished to represent himself, as he believed representation appointed to him by the American district court would not be in his best interests. The conversation went as follows:

> The Court: "Mr Abdulmutallab, I must advise you that in my opinion you would be far better defended by a trained lawyer than you can be by yourself. I think it is unwise of you to try to represent yourself. You're not familiar with the law, you are not familiar with court procedure, you're not familiar with the rules of evidence, and I would strongly urge you not to try to represent yourself. Now, in light of the penalty that you might suffer if you are found guilty, and in light of all the difficulties of representing yourself, is it still your desire to go forward and represent yourself without giving another try to having an attorney represent you, just even over the next month or two, to see if perhaps we can appoint an attorney who would have what you believe to be your best interests in mind?"
> Abdulmutallab: "Yeah, I don't want that, no."
> The Court: "You don't want another attorney?"
> Abdulmutallab: "No."
> The Court: "Is your decision entirely voluntary on your part?"
> Abdulmutallab: "Yeah."
> The Court: "All right. I find that the defendant has knowingly and voluntarily waived his right to counsel, and I will permit him to represent himself. However, I am going to appoint standby counsel, which I would always do in the case of

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

> trial, but I believe this case demands that we have standby counsel available for you to consult with for any questions that you might have as you prepare to represent yourself at the trial in this matter."

On 5th August 2011, Abdulmutallab's standby counsel filed a motion to suppress the statements Abdulmutallab made at the Hospital, and a motion for a competency hearing under seal. Abdulmutallab claimed that the witness statements from the Hospital should be suppressed, as he was not given a Miranda warning prior to making the statements, and he was under the influence of the pain-relief medication Fentanyl at this time. This was rejected.

On 12th October 2011, Abdulmutallab pled guilty to all eight counts against him, and released this statement, which highlights the degree of the command and control links with others in Al Qaeda:

> "In the name of Allah, the most merciful, if I were to say I the father did not do it, but my son did it and he conspired with the holy spirit to do it, or if I said I did it but the American people are guilty of the sin, and Obama should pay for the crime, the Court wouldn't accept that from me or anyone else. In late 2009 in fulfillment of a religious obligation, I decided to participate in jihad against the United States. The Koran obliges every able Muslim to participate in jihad and fight in the way of Allah, those who fight you, and kill them wherever you find them, some parts of the Koran say, an eye for an eye, a tooth for a tooth. I had an agreement with at least one person to attack the United States in retaliation for U.S. support of Israel and in retaliation of the killing of innocent and civilian Muslim populations in Palestine, especially in the blockade of Gaza, and in retaliation for the killing of innocent and civilian Muslim populations in Yemen, Iraq, Somalia, Afghanistan and beyond, most of them women, children, and non-combatants. As a result, I travelled to Yemen and eventually to the United States, and I agreed with at least one person to carry an explosive device onto an aircraft and attempt to kill those on board and wreck the aircraft as an act of jihad against the United States for the U.S. killing of my Muslim brothers and sisters around the world. I was greatly inspired to participate in jihad by the lectures of the great and rightly guided mujahedeen who is alive, Sheikh Anwar al-Awlaki, may Allah

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

preserve him and his family and give them victory, Amin, and Allah knows best. Participation in jihad against the United States is considered among the most virtuous of deeds in Islam and is highly encouraged in the Koran; however, according to U.S. law, which is unjust and oppressive according to the Koran, my actions make me guilty of a crime in the United States, in particular, the following counts in my indictment… The United States – The United States should be warned that if they continue and persist in promoting the blasphemy of Muhammad and the prophets, peace be upon them all, and the U.S. continues to kill and support those who kill innocent Muslims, then the U.S. should await a great calamity that will befall them through the hands of the mujahideen soon by God's willing permission. Or God will strike them directly with a great calamity soon by his will, Amin. If you laugh at us now, we will laugh at you later in this life and on the day of judgment by God's will, and our final call is all praise to Allah, the lord of the universe, Allahu Akbar… The mujahedeen are proud to kill in the name of God, and that is exactly what God told us to do in the Koran."

Scripting Solo Terrorist Events

The solo terrorist script (Figure 5.2) appears similar to that of the lone actor terrorist script (Figure 5.1) except for the preparation phase which is ultimately simplified here through the pooling of social, technical and financial capital typically found within larger organizations.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

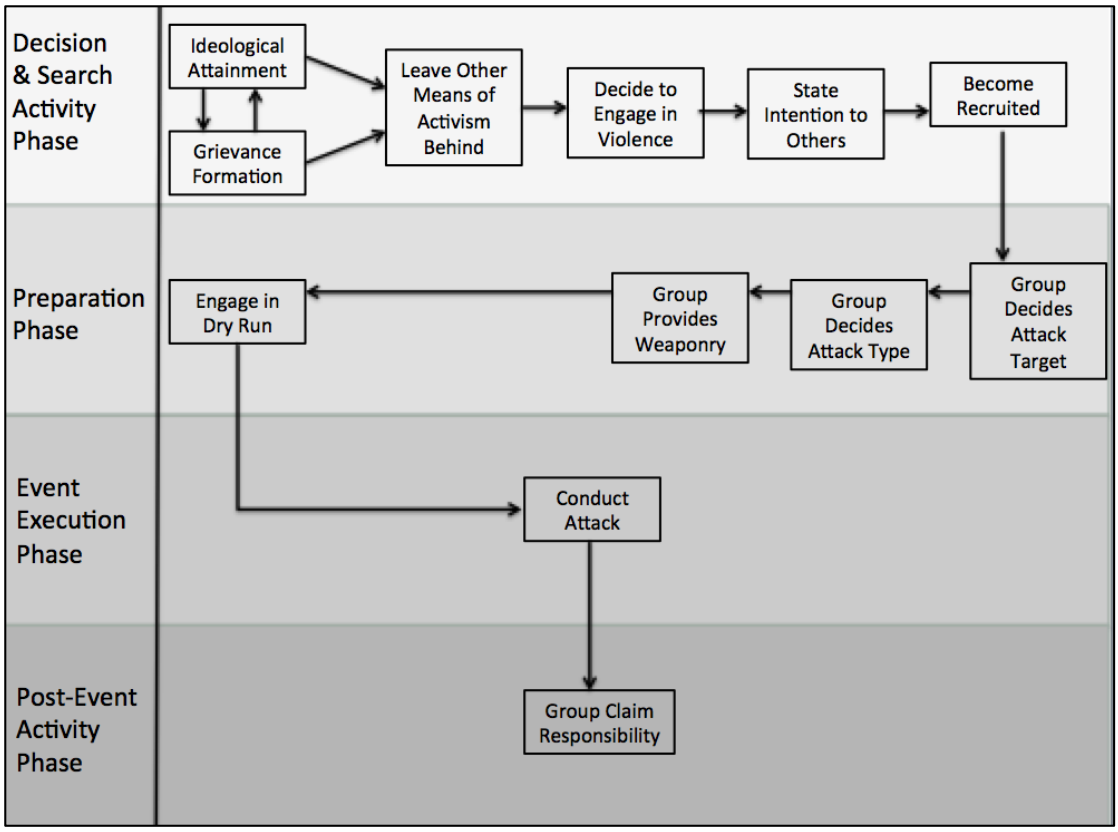


Figure 5.2 Solo Actor Attack Script

Mass Murderers

We now turn to a comparison group of offenders, mass murderers[11], who like terrorists, engage (or attempt to engage in) largely public acts of violence and who often use similar weapons, but who are commonly distinguished from terrorists based on the absence of ideology. Our analysis of the 115 mass murderers in our unique dataset reveals that these offenders also differ from lone actor and solo actor terrorists in certain behaviors that typify their trajectory into violence.

In the first place, unlike lone and solo actor terrorist attacks, some mass murders appear to be spontaneous incidents, arising from the physical or emotional conflicts immediately prior to the attack and in which the individual does not exhibit any meaningful planning behaviors prior to the attack. While the percentage of mass

[11] Defined as an individual who kills four or more people in one event over a relatively short period of time (within 24 hours), excluding state sponsored or organized crime related events, or events that are solely domestic in nature

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

murders that occur in these circumstances (N = 17, 15%) is relatively small, the apparent lack of predetermined intent and strategy sets at least these offenders apart from lone actor and solo actor terrorists.

Nevertheless, like lone actor and solo actor terrorists, the majority of mass murderers (83%, N = 98) engage in a series of discreet, sequential behaviors that culminate in a planned attack. In other words, most mass murders are the result of a process comprising a series of recognizable stages. A reasonable question, then, is whether the "script" that mass murderers follow is the same as the four-stage process we identified above for lone and solo terrorists.

Below are five mass murder case studies that illustrate the ways in which mass murder might be described through the pathway to violence paradigm and which also highlight differences between mass murderers and lone actor terrorists as they move on a trajectory toward violence.

Kyle Huff

On March 25, 2006 Kyle Aaron Huff attended a "zombie rave" in the Capitol Hill neighborhood in Seattle, Washington. There he was invited to an "after-rave" party which he attended hours later. The rave itself had heavy security, but some people, including Huff, continued the party afterward. Those who knew the 6'5 and 270-pound Huff described him as a gentle giant. The manager of the apartment building where Huff lived said that the murders would have been "so far out of character" for Huff, describing Huff and his twin brother as "respectful" and good tenants. But in the early morning of that March day, this seemingly peaceful 28-year-old man briefly left the after-rave party, retrieved a shotgun and handgun from his truck parked around the block, paused to spray-paint the word "NOW" three times on the sidewalk, and began shooting as soon as he reached the house where the party was being held. He then walked methodically through the house, shooting through locked doors, and shouted "There's plenty for everyone" (or something to that effect). He killed six partygoers (four males and two females) who ranged in age from 14 to 32, and seriously wounded two others. As the police arrived, Huff committed suicide.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Huff had moved to Seattle from Whitefish, Montana with his twin brother approximately four years before the mass murder. He had attended college but did not graduate, had been unemployed for several months before the event after several short stints as a pizza delivery driver, and was single. He had no known history of a diagnosed mental illness, and his criminal record was limited, with only a conviction for criminal mischief while he was living in Montana.

Grievance

At first, there was little evidence pointing to a motive for this seemingly random attack. The police were not able to establish any connection between Huff and any of the victims (other than attendance at the rave event) or between Huff and anyone who owned the private house where the shooting occurred. Further, the police did not uncover evidence of a dispute of any kind between Huff and anyone at the party, let alone the type of serious confrontation that might conceivably lead someone to feel the need to resort to deadly violence.

Then, nearly a month after the murders and in a completely unrelated matter, the Seattle police responded to a report of a suspicious package found in a dumpster approximately a block from where Huff had lived in Seattle. The package itself was actually harmless, but what the police found in a fast-food bag in the dumpster shed new light on Huff's mass murder. In the bag was a suicide note written by Huff two days before the attack. In the letter, addressed to his twin brother with whom he lived, Huff explained his motivation – defending society from the dangers of the rave-culture that he perceived as dangerous and promiscuous. Huff wrote: "this is something I feel I have to do, my life would always feel in complete otherwise. I can't let them get away with what theyre doing, kids like me and you are seriously dying over this shit. I hate this world of sex that they are striving to make." The presence of the letter in the dumpster has never been explained.

Some have speculated that the spray-painted words "NOW" may have been in reference to the "now, now, now, now" refrain from a popular song by the Seattle based band Nirvana, which was one of Huff's favorite groups. Whether this was intended to provide a measure of insight into the motivation for the attack or was merely a troubled man paying homage a favorite group remains unknown.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Ideation

It is not possible to determine at what point Huff decided that mass murder was a reasonable approach to address his grievance. Neither his brother nor any of his friends in Montana or in Seattle can recall any signs that Huff would act violently and even those at the party that early morning had no indication that Huff was about to launch his attack. Huff is clear about his violent intent when he writes the suicide note, but the note does not provide any meaningful clues as to when he came to this violent ideation. It may have been as long as weeks before as he began attending rave parties, or at some even earlier time, although likely after he moved to Seattle.

Research and Planning

Subsequent to the finding of the suicide letter, the police investigation revealed that Huff had probably been planning the mass murder for longer than two days before the attack when he penned the suicide note. Apparently, Huff had been conducting surveillance on the rave community in Seattle for weeks. Some witnesses said that they saw Huff in his truck watching a rave in the beginning of February, nearly seven weeks before the murders. When the police searched Huff's computer, they found searches related to the rave culture and a limited number of searches regarding a variety of hate groups. These searches do not seem to have been directly related to the planning of the mass murder.

Since he was invited to the party only once he was actually at the rave, it is not clear that Huff's original plan had been to attack at that particular after-party. Based on the amount of ammunition he had with him in the truck, it could be that he intended to start shooting at the rave itself where there were many more potential targets. However, there were four guards at the rave checking for drugs and weapons, which might have discouraged Huff from attacking that site.

Preparation

While it is unclear exactly why Huff chose this particular party for his attack, it is clear that he was well-prepared for the event. Seattle Deputy Police Chief Clark Kimerer said that the slayings were definitely pre-meditated, noting that Huff had

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

loaded his truck with weapons and over 300 rounds of ammunition. Upon leaving the party, Huff retrieved a Winchester pump action 12-gauge shotgun and a Ruger P-94 handgun, two bandoliers full of shotgun ammunition, and a tactical ammunition pouch holding AR-15 ammunition, even though he did not carry the AR-15 rifle back to the house, leaving it in the truck. Huff also left a machete and "flex-cuffs" in the truck, although it is not known if these items were related to the attack plan.

Breach

The breach in this case was both deadly and effective. Had he chosen to conceal his weaponry in some fashion, Huff likely could have simply walked back into the party he had voluntarily left moments earlier. Nevertheless, Huff took a more forceful approach, openly carrying his weapons through the street to the house. As he neared the front porch of the house, Huff immediately shot two of the victims, one of whom fell through the front doorway, which had an unintended effect on the breach. Several party-goers who heard the gunfire and had seen the two victims fall tried to push shut the front door but were unable to do so because the body of one of the victims was physically blocking the doorway. This allowed Huff to simple shove open the door and step over the victim's body as he continued firing.

Attack

Somewhat curiously, Huff launched his attack as the party was winding down and many of the approximately 50 people who had attended the party had either left or were in the process of leaving. Had he began shooting a few hours before, he would likely have had even more targets to attack.

In any event, Huff was able to gain entry by shooting his way in. While his shooting pattern does show some evidence of disorganization, Huff had some measure of control as he began; noticing that the first two victims that he shot with the shotgun were still alive, he pulled out the pistol and shot each again. He went upstairs, came back downstairs, and then went into the basement. Along the way he discarded or dropped one bandolier, and when he stopped shooting, he walked back out the front door. The attack ended when Huff saw the police and shot himself in the head.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Michael McDermott

On December 26, 2000 Michael McDermott went to work at Edgewater Technologies in Wakefield, Massachusetts where he was a software tester, talked for some time with his co-workers, and then took out a semiautomatic rifle and shotgun and killed seven co-workers (four women and three men). Most of the victims worked in the human resources and accounting department of Edgewater Technologies. McDermott was apprehended on site and subsequently went to trial for the murders. His defense was that he was psychotic during the attack, believed that he had traveled back in time following instructions from God, and was actually shooting Nazis in Adolph Hitler's bunker during 1940. He was convicted and sentenced to life in prison without the possibility of parole.

At the time, McDermott, who often went by "Mucko" (a nickname bestowed on him by his young nephews who could not pronounce his name), was 6'2, weighed over 300 pounds, and had long, bushy beard. People at work thought he was reasonably amiable, but a bit peculiar. He lived by himself, and spent some of his free time posting on Internet bulletin boards, where he was known to have some expertise regarding explosives, although he did not make threatening posts or any that were considered politically volatile.

He had served six years in the United States Navy and was honorably discharged, never attended college, had no criminal convictions and no arrests prior to the mass murder. By 2000, he had been divorced for four years and lived alone. At trial, he presented evidence that as a young child a neighbor raped him repeatedly, and that he had attempted suicide several times as a teenager and as an adult. Approximately four years before the attack, McDermott was diagnosed with recurrent major depression, a mixed character disorder, and obsessive-compulsive personality. In the weeks before the mass murder, McDermott's work performance suffered and he frequently showed up late for work.

Grievance

McDermott's grievance - his belief that he was being treated unfairly by the human resources and accounting department at Edgewater - stemmed directly from the

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

intersection of his mounting financial debts and efforts of the Internal Revenue Service to collect back-taxes. While a neighbor who lived upstairs from McDermott said that McDermott never mentioned any financial difficulties, McDermott was, in fact, continually in debt and was facing particularly acute financial stress around the time of the attack. In the months and years before the attack, McDermott was frequently late with his rent, and one landlord stated that McDermott moved out without paying over $1,600 in rent (which he never repaid).

The police investigation revealed that sometime in the month before the murders, the Internal Revenue Service contacted Edgewater Technologies and requested that they garnish McDermott's wages. McDermott was upset about the company's plan to comply with the IRS request. Additionally, on December 21st, just days before the shooting, McDermott learned that his car was going to be repossessed if he did not make his payments.

Ideation

When employees in the accounting and human services department informed him of the planned garnishment, McDermott became explosively angry. It may have been at this time that McDermott settled on violence as a means of redress for what he considered unjust treatment. Additional evidence that McDermott settled on violence as a course of action is that at on December 22nd, four days before the event, McDermott asked several co-workers to sign as witnesses to a will he had prepared. This end-of-life planning, particularly since it was done at work, would seem to indicate that McDermott was at least contemplating a violent end for himself at approximately the same time that he was informed of the latest and most severe consequences of his financial instability – the garnishment of his wages and the potential loss of his car.

Research and Planning

McDermott's research and planning phase comprises two distinct areas. He not only carefully planned the attack, but he just as carefully planned his defense at trial. Knowing that surprise would be the key to killing as many of his targets as possible, McDermott stashed most of his weaponry in his work space the evening before (which was Christmas), when he stopped by Edgewater for a brief time (18 minutes)

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

even though the offices were closed for the holiday. As for his claim at trial of psychosis, the prosecution countered by producing evidence that McDermott had used his personal computer to conduct research about how to fake mental illness. A record of his Internet searches showed that he had been constructing his legal defense at the same time that he was planning his mass murder.

Preparation

McDermott was well prepared for his assault. He test-fired his shotgun and semiautomatic rifle two days before the attack, and dropped off weapons and ammunition in his work locker the day before the mass murder. On the day of the event, McDermott used a duffel bag to conceal the additional shotgun shells and cartridge boxes he was carrying. When police later searched his apartment, they found bomb-making materials, blasting caps, and three gallons of nitric acid, which can be used to make nitroglycerine. The investigation did not reveal any indication that McDermott intended to use those chemicals for any violent purpose.

Breach

McDermott's breach was only that in the most technical sense, as he simply walked into work at his usual time and as expected. He chose to attack at a place where he knew the physical layout of the site and was confident that there would be no security measures that could defeat his intent. The targets he chose were also well known to him, as were their work schedules and their exact locations in the building. Thus, there was no need for him to use violence or deceit of any kind on the morning of the attack; in fact, any efforts to do so might have given his targets a warning of some kind and an opportunity to escape.

Attack

Part of McDermott's method of attack was to rely on the usual routine of Edgewater. He arrived at work at 9:00 am and went about his normal activities. At 10:30 am he was in the company kitchen speaking with several co-workers. Those who were there recall that McDermott appeared to be unusually sociable, but that ceased when one of the co-workers began staring at the duffel bag McDermott was carrying. At approximately 11:07 am, McDermott received a telephone call from the repossession company about his car, and he stated that he no longer needed it and the repossession

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

company could pick it up at the Edgewater garage. He also spoke by telephone with his mother.

After the calls, McDermott returned to the lobby reception area carrying his duffel bag. When asked by the receptionist what he was doing, McDermott replied that he needed to see someone in human resources, and began firing, killing the receptionist and another co-worker. McDermott then walked to the accounting and human resources offices, bypassing several potential targets, and killing four more people as he went. In total, he fired more than three-dozen rounds from the semiautomatic rifle and shotgun.

When the police arrived, they found McDermott sitting silently in the lobby with his loaded weapons within reach. The defendant did not respond to police commands initially, stating: "I don't speak German." The police then arrested McDermott without incident.

Jeffrey Weise

On March 21, 2005 16-year-old Weise killed his grandfather, who was a tribal law enforcement officer on the reservation where they lived, and his grandfather's girlfriend, then drove to his school and opened fire at students and teachers in the hallways. He eventually killed nine people and wounded seven others. When law enforcement officers arrived, Weise engaged in a shootout before eventually retreating to a nearby classroom and killing himself. It appears that the victims at Red Lake High School were random. He did not leave a suicide note.

Grievance

It is difficult to pinpoint what exactly motivated Weise to commit the murders, although is clear that he was troubled for many years before the murders. Jeffrey Weise had a difficult life from the time he was very young. Before Jeffrey was sixteen, his father had committed suicide and his mother was in a nursing home after suffering traumatic injuries in a car accident. After moving several times in his youth, he eventually moved in with his grandfather on the Red Lake Reservation in

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Minnesota. He was also a loner who was reportedly bullied at school, although apparently not to an extreme degree. By the time he was in high school he had been diagnosed with depression and had been prescribed increasingly higher doses of Prozac.

An examination of his online posts show Weise admired Hitler, disapproved of "racial mixing", and sometimes referred to himself online as the "Angel of Death" in German on various websites and chat rooms. He often drew comic books featuring images of people shooting each other and his sketch of a skeleton playing guitar accompanied by the words: "March to the death song 'til your boots fill with blood" was displayed in his English classroom. Approximately 17 months prior to the mass murder, Weise pulled the eraser from a pencil and used the exposed metal edge to gouge his arm. Just a few months before the attack, he was reprimanded by a teacher at school and confined to a cubicle in the suspension room where he again gouged his arm. He was eventually expelled from school for violating rules, and at the time of the attack was in a program that provided tutoring at home. It may be that the accumulation of loss (of his father), rejection (by his peers), and his inability to connect with his mother (in a nursing home) propelled Weise toward extreme violence.

Ideation

There is no clear indication of when Weise came to the decision to murder both family members and fellow students. Surviving family members believe that at least part of the explanation for Weise's actions can be traced to a change in medication he was taking. The summer before the attack, Weise had attempted suicide, and afterward was put on a higher dose of the anti-depressant Prozac than he had been on before the attempt. Weise's fascination with Nazis, seen in his computer searches and online postings and chats, indicate some attraction to violence as a solution to problems. And, he clearly seemed to understand that he was an angry and potentially dangerous person; in a profile page on an Internet site, Weise he described himself as "16 years of accumulated rage suppressed by nothing more than brief glimpses of hope, which have all but faded to black." So, it appears that aside from being depressed and suicidal for years before the attack, Weise was also masking powerful feelings of anger (presumably) toward others whom he may have held responsible for his lot in life – including members of his family as well as his peers.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Research and Planning

Another teenager was arrested in connection with the mass murder, and is believed to have helped Weise plan the assault and reportedly also considered being part of the rampage. Both because Weise died in the attack and because of the status of both Weise and his alleged co-conspirator as minors, not all information regarding the planning of the attack has been made public. After a review of his emails though, law enforcement authorities concluded that Weise's assault was not spontaneous and that he (and perhaps others) planned the event well in advance.

Preparation

Weise was able to prepare for the mass murder in short order. He had everything he needed in his grandfather's house – guns, ammunition, body armor, and transportation. Once he killed his grandfather and his grandfather's girlfriend, he was fully prepared for his extensive assault on Red Lake High School. He would have known that he was barred from the school and that the (unarmed) security guard at the front door would challenge him. Weise was prepared for this circumstance, as he was armed and ready to shoot as he arrived at the school

Breach

Weise did not breach the first site of his attack, as he killed his grandfather and his grandfather's girlfriend in the home that they all shared. Weise's breach at Red Lake High school was violent and efficient. As he entered the school through a doorway with a metal detector he simply shot and killed the unarmed security guard who confronted him. Weise was then free to roam the hallways.

Attack

After killing his grandfather, who was a member of the tribal police force, Weise armed himself with his grandfather's police-issued .40 caliber handgun, a 12-gauge shotgun, and his grandfather's body armor vest before driving to the school in his grandfather's police cruiser.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

After killing the unarmed guard and gaining entry to the school lobby, Weise proceeded down a connected hallway. As he walked, Weise fired at a teacher and some students, who immediately fled into a classroom. Weise followed them into the classroom, killing the teacher and several of the students. He then continued down the hallway, apparently firing at random victims.

Four armed police officers entered the school and Weise fired on them as well. At least one officer returned fire, although it is not known if Weise was injured in that exchange. Shortly after this confrontation, Weise went into a classroom and shot himself in the head. During his attack, Weise fired 45 times, killing all of his victims at the school in less than three minutes, although he continued to wander the hallways shooting at random for approximately another six minutes.

Robert Hawkins

On December 5, 2007 19-year-old Robert Hawkins walked into the Von Maur department store at the Westroads mall in Omaha, Nebraska and started firing at shoppers with an AK-47-style semiautomatic rifle. He killed five women and three men, and injured two others. Finally, he killed himself. Hawkins had no known connection to any of the people he killed or wounded, and had no particular association with the mall itself (although it was only 20 miles from where he lived at the time and he had likely been there previously).

Hawkins had a long history of drug use and troubling behavior, including a voluntary admission to a psychiatric treatment center after threatening to kill his stepmother when he was fourteen years old. While at this facility, Hawkins received private psychotherapy and drug counseling and eventually became a ward of the state when his family's health insurance did not cover his continuing treatment. Hawkins lived in a variety of foster homes over the next several years, and was hospitalized at least twice more for psychiatric problems. He was eventually diagnosed with attention-deficit disorder, oppositional defiant disorder, and mood disorder.

At the time of the event, the state had terminated its custody, and Hawkins lived with the family of a friend after having been asked to leave the home of his latest foster

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

parents. He was a high school dropout and his criminal record included being a minor in possession of an open container of alcohol, assault after a fight in high school, and possession with the intent to deliver drugs, and weeks before the mass murder he had been ticketed on suspicion of contributing to the delinquency of a minor and two alcohol charges. He had recently been fired from his job at a fast-food restaurant and broken up with his girlfriend.

Grievance

Hawkins had no known grievance with the people he killed or that mall where he attacked; his grievance appears to have been a more global one, driven both by his psychiatric and family history as well as by recent failures in his life. Since he committed suicide at the scene, the potentially complex ways in which these factors intersected and may have pushed Hawkins toward his murderous rampage will never be known with certainty.

Hours before the shooting, Hawkins called the house where he had been staying, speaking both with his friend and his friend's mother and telling them that he was sorry and that they wouldn't have to worry about him anymore. During that phone call, Hawkins revealed that he had just been fired from his job at McDonald's, having been accused of stealing money from his till. After that phone call, the friend and the friend's mother were worried that Hawkins was suicidal and they checked his room, discovering two suicide notes. The pair then called Hawkins's biological mother, who came and picked up the notes and took them to the police.

Hawkins wrote one note to his family:

> Family, I'm so sorry for what I've put you through. I never meant to hurt all of you so much and I don't blame any one of you for disowning me I just can't be a burden to you and my friends any longer. You are all better off without me. I'm so sorry for this.
>
> I've just snapped I can't take this meaningless existence anymore I've been a constant disappointment and that trend would have continued. just remember the good times we had together.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

That note ends with Hawkins expressing his love for his parents and various friends. There is no mention in the note of the attack at the mall.

The second note, which ends with a short will, is addressed to his friends, and begins much like the first note, expressing remorse for having caused trouble for his friends, having been a burden, and states that "this is the only option." But, after requesting that his friends recall the many good times they managed to share, Hawkins writes something entirely different: *Just think tho I'm gonna be fuckin famous*. Approximately 40 minutes before the attack, Hawkins also texted a former girlfriend and said that he wanted to shoot a lot of people at a mall and then kill himself.

Ideation

Well before the mass murder Hawkins had revealed his violent ideation, not only threatening to kill his stepmother as a 14-year-old, but much more recently telling a friend that he would kill her and her family and burn their house down because he suspected her of stealing a CD player from his car. In addition to these specific instances of threatening murder, friends also say that Hawkins had been fixated on death for years and talked about it frequently.

As shown in the suicide note addressed to his friends, Hawkins saw violence not only as a means to address the frustration and despair that he was feeling, but also as a means to achieve a more general goal that had eluded him so far in his life – to become famous. Hawkins used mass murder as a means of forcing others to pay attention to him.

Research and Planning

It is not possible to know how much time Hawkins spent planning his attack, but there is clear evidence that he did at least some minimal amount of research and planning. Even though he writes in his suicide notes that he "just snapped", he obviously didn't, as one of the notes shows that he had planned to kill not only himself, but also many others, at least enough to make him "famous." It is unclear when Hawkins wrote the notes, but given his goal, it seems likely that Hawkins did at least enough research to know how many people he would have to kill in order to obtain the amount of media

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

coverage that would qualify him, at least in his mind, as a famous person. Hawkins was also likely very much aware of the intense media coverage that Seung-Hui Cho received after the Virginia Tech shootings earlier that year. It is probable that he chose a location – the mall – precisely because it would be filled with holiday shoppers and would present a substantial number of targets, thereby increasing his chances of reaching his goal.

Preparation

Hawkins did not have to invest significant time in preparing. He simply stole the rifle and ammunition from his stepfather. The day before the mass murder, Hawkins actually showed the rifle to the family with whom he was staying at the time. They did not think much of the weapon (which was apparently not in very good condition), and assumed that Hawkins was only going to target shoot or hunt, which would not have been unusual for him.

Breach

While Hawkins had access to the mall during normal business hours, his method of entry was somewhat unusual and actually could have derailed his plan. Security video released by law enforcement shows Hawkins, wearing a hooded sweatshirt, entering the mall and looking around for a few moments before walking out and then coming back in the same door minutes later. This second time, he appears to be carrying something or have something hidden under his sweatshirt. He is then seen getting on an elevator. This unusual activity drew the attention of the unarmed mall security guards. It is unclear what actions the security guards took, but by the time police officers arrived minutes later in response to the shooting, Hawkins had already killed eight others and himself.

Attack

Although the shooting actually began in the children's department where Hawkins fired his rifle straight up in the ceiling, security photographs released by law enforcement show Hawkins standing on the balcony of the third floor of the mall, his sweatshirt unzipped and aiming the rifle at unseen targets. Hawkins then walked to the atrium where he leaned over an escalator railing and shot one man in the head. Hawkins next fired on people in front of a customer service counter, eventually

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

walking around to fire at those hiding behind the counter. He did not appear to target either specific people or a specific type of person; witnesses said it appeared that Hawkins was shooting at random targets, although he appeared to be aiming at people and not simply randomly shooting. The entire attack took only minutes, and was over by the time the first police officers arrived at the mall a little over five minutes after the first 911 call. Sounds of gunfire can be heard in the background of the call. The attack ended with Hawkins committing suicide.

Gang Lu

On November 1, 1991 Gang Lu went on a shooting rampage at two separate buildings at the University of Iowa campus in Iowa City. Lu, who had recently earned his doctorate in physics from the school, killed four people and critically wounded two others before shooting himself in the head.

A 28-year-old native of the People's Republic of China, Lu was by all accounts a brilliant student who excelled in the study of physics. For six years, he had been one of the most gifted students in the nationally recognized department, specializing in space plasma theory. But he was also a loner, and others from the department who knew him said he lacked social skills and was isolated from his colleagues, including those from his native country who were also studying at the University of Iowa. He was single and had no known criminal record or mental health history. According to acquaintances, since graduation Lu had seemingly been under a greater than usual amount of pressure, most of it self-imposed.

Grievance

Although many who succeed academically in competitive graduate departments are ambitious and hard-working, former professors described Lu as being extremely competitive; he was seen as someone who drove himself relentlessly toward academic achievement during his entire time at the university. Certain faculty members and fellow students also saw him as temperamental and easily agitated. A doctoral candidate who had been a roommate of Lu said that Lu "had a very bad temper and saw himself as No. 1. He had a psychological problem with being challenged." This

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

apparent need to be the best and to be perceived as the best led to Lu's grievance aimed at the university.

Although his dissertation regarding computer calculations of the properties of ionized glass impressed the faculty, Lu was extremely upset that he did not win an academic award for his dissertation. The prestigious Spriesterbach Dissertation Prize and the $2,500 that went with it were instead awarded to another student who had previously been Lu's roommate. Ultimately, that student was one of the persons Lu specifically targeted and killed.

Subsequent to the attack, investigators recovered five letters written by Lu in which he reportedly identified his targets. None of the letters (four written in English and one in Chinese) were mailed before the attack. Lu had actually entrusted the letters to an acquaintance who was to mail them, but the acquaintance turned the letters over to the authorities after learning of the mass murder. Authorities said the letters described Lu's grievance and outlined his detailed plans to kill even more university employees than he eventually did. The letters, though, make it clear that Lu's grievance was primarily motivated by what he perceived to be slights to his academic reputation which he perceived would tar his professional reputation and prospects.

Ideation

After failing to receive the dissertation award, Lu did not turn to violence immediately as a solution to his grievance. Instead, he first wrote a series of letters to the university appealing the departmental decision concerning the award of the dissertation prize. None of these appeals succeeded, and Lu eventually dropped this non-violent approach. As indicated in his letters later recovered by the police, at some point after his written appeals were rejected, he consciously and deliberately decided to kill those he held responsible for his unjust treatment.

Research and Planning

The attack Lu carried out did not require extensive research or planning. At most, he needed to know where his targets would be on campus and he was likely able to establish their locations in advance of his attack. In addition, he attacked in locations with which he was very familiar and to which he had unfettered access. The

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

department meeting was a scheduled event and Lu would certainly have known that many, although not all, of his targets would be present. He also knew that he would be able to carry his handguns into the meeting, as there were no special security measures at this routine academic gathering. Once he was finished shooting at the meeting, Lu also knew exactly which other building on campus he needed to access in order to complete his task. He would have known how far the second building was from the first and how long it would take to walk from one to the next. In short, based on familiarity with the university and its personnel and procedures, Lu would have had little reason to conduct surveillance of any kind or commit time or resources to researching his targets and their schedules.

Preparation

Lu applied for a permit to buy a firearm in Iowa on May 21st, over five months before the mass murder. After showing his visa and Chinese passport, he was granted the permit three days later (although he legally owned the weapons, Lu did not have a permit to carry them). In addition to acquiring the means to carry out the attack, Lu also engaged in end-of life activities. Aside from giving letters explaining his actions to an acquaintance, Lu also mailed a package of personal belongings to his parents in China just an hour before the attack. When police searched his apartment, they concluded that Lu had taken the time to put his financial and personal affairs in order and had been preparing for the attack for some time.

Breach

Lu had no difficulty gaining entrance to the campus buildings for his attack. Although he was no longer a student at the University, he continued to work in a physics lab on campus as he sought employment. Thus, he had unfettered access to both buildings where he attacked, and his presence would have been unnoticed at the department meeting where he began the assault.

Attack

The shootings began at approximately 3:40 pm when Lu stood up during a scheduled meeting in his department and shot and killed four men. He did not say a word during

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

the assault. The entire attack lasted less than 10 minutes, during which time Lu moved from the building where the meeting was being held to a nearby building where he continued firing. He appeared to specifically target certain people, shooting each victim at close range using a .38 caliber revolver. He also carried with him a .22 caliber handgun that he did not fire. Once inside the second building, Lu eventually shot himself in the head, but was alive when police found him minutes after he fired his last shot.

In addition to murdering the student who received the dissertation award, Lu also killed three professors who were on his dissertation committee, including the chairman of the department. After walking the few block to the second building, he shot the vice president of academic affairs and her receptionist. After this, he walked upstairs to another floor where he shot himself. Lu eventually died from this self-inflicted gunshot.

Scripting Mass Murder Events

Although still exploratory in nature, our examination of the 98 mass murderers in our dataset who do not engage in spontaneous violence reveals that they do *not* reliably follow the same "natural history from inception to completion" of the attack as lone actor and solo actor terrorists.

Indeed, the fundamental distinction between the two groups – motivation – dictates different actuation points for violence. By definition mass murderers lack an ideology and, thus, cannot be said to engage in the **decision and search activity** involving calculations based on current "political and security climates" that characterizes the incipiency of lone actor and solo actor terrorist attacks. Most mass murderers (57%, N = 65) are concerned with personal feelings of having been wronged by a specific person and ultimately murder (or attempt to murder) the person whom they hold responsible for that wrong. Other mass murderers (16%, N = 18) have a grievance against a category of persons and attack representatives of that group (the remainder were either spontaneous attacks and/or any grievance is unknown).

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Nor do mass murderers typically concern themselves with **post-event activity and strategic analysis** as do lone actor and solo actor terrorists. The majority of mass murderer events are resolved when the offender commits suicide at the scene (43%, N = 50) or is killed by the police at the scene (10%, N = 12), and even those who survive appear not to have planned much beyond their homicidal attack. Very few displayed any evidence of having planned an escape (17%, N = 19) or having any intent to commit another attack (14%, N = 16). In short, it seems as if most mass murderers give very little attention to post-attack planning or strategizing of any kind.

It is reasonable, then, to ask whether mass murderers follow a different "script" than do lone actor and solo actor terrorists. A model that may better describe the script of a mass murder has its origins in a behavioral pathway model conceptualized in two US Secret Service studies, one involving assassinations of public figures and the other school shootings (Fein & Vossekuil, 1999; Vossekuil et al., 2002). These and following studies theorized a route from idea to action comprising ideation, planning, preparation and implementation. These same phases were subsequently incorporated into an expanded model of a *pathway to violence* (Calhoun & Weston, 2003), which proposes the following six milestones:

> **Grievance** (the cause of the individual's distress or resentment, often based on a perception – whether based in reality or not – of having been wronged or treated unfairly or inappropriately; resulting in a desire, even a sense of mission, to right the wrong and achieve a measure of deserved justice);
>
> **Ideation** (the point at which the individual realizes and accepts that violence is the appropriate and necessary means to address the grievance; the stage where the conscious choice is made to cause harm to others);
>
> **Research and Planning** (at least a minimal amount of research and planning takes place once violence is adopted as the means to address the grievance, even if only to identify when an where the attack should take place; amount of research and planning can vary widely);

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Preparation (after a plan, however rudimentary is developed, the individual must acquire the means to carry out the plan; even if already possessing the weapon to be use, the person may need to acquire more or special ammunition, arrange transportation, etc.);

Breach (the step immediately prior to the attack in which the individual positions himself or herself for the assault and defeats any security measures in place, however minimal they might be); and

Attack (the final stage where the intended plan for violence is enacted).

The five cases above provide illustrations of the pathway to violence paradigm, but they by no means cover the universe of experiences of those on a trajectory to perpetrate mass murder. Below, Table 5.1 outlines other examples taken from our unique dataset of 115 mass murderers of the behaviors for the six stages along the pathway to violence:

Table 5.1 Stages within the Pathway of Violence

Grievance	• Sense of being treated unfairly at work • Desire for revenge for being bullied at school • Belief in being unjustly denied fame • Lack of success in forming romantic relationships • Belief that a failing grade in high school resulted in adult unemployment • Sense of being targeted for harassment by acquaintances and family
Ideation	• Communicating to third-parties the desire to harm others • Dropping non-violent alternatives (appeals, lawsuits) to resolving grievance • Identifying with Columbine murderers • Contextually inappropriate use of firearms • Fixation on militaristic gear and paraphernalia • Generation of violent written content and images

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Research & Planning	• Stalking • Surveillance of potential attack sites • Practice approaches • Keeping a log of thoughts and information concerning the grievance
Preparation	• Acquiring weapons and/or ammunition • Modifying weapons for ease of concealment or use • Acquiring/arranging transportation • Relatively minor "practice" aggressive acts
Breach	• Using a hostage to demand entry to attack site • Shooting out doors/windows of a business • Entering the lobby of a shopping mall • Hiding a handgun in a backpack carried into work • Dressing as a FedEx worker to gain entry to a home
Attack	• Taking children hostage at a schoolhouse • Randomly shooting at shoppers in mall • Walking into work and attacking co-workers • Setting fire to a crowded nightclub • Killing a former spouse and bystanders at her place of work

This exploratory analysis suggests that mass murderers follow a different "script" than lone actor and solo actor terrorists as they move toward and through violence, and that the *pathway to violence* model offer a means of conceptualizing the process. We recognize that the *pathway to violence* model is just that – a model – and that there may be other relevant variables (such as the time between stages) that may have explanatory power. We do, though, see the model as a useful tool to integrate for further study the behaviors that typically compose the phenomenon of mass murder.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

6. Conclusion

On the surface, both lone actor terrorism and mass murder attacks seem to defy explanation. The immediate aftermath of both phenomena is marked by drama, panic and an inevitable search for simple answers. In particular, there is an unerring tendency to reach for mono-causal master narrative explanations. We can consider President Obama's words on lone actors as an illustration:

> The biggest concern we have right now is not the launching of a major terrorist operation…the risk that we're especially concerned over right now is the lone wolf terrorist, somebody with a single weapon being able to carry out wide-scale massacres…You know, when you've got one person *who is deranged or driven by a hateful ideology*, they can do a lot of damage (emphasis added - http://security.blogs.cnn.com/2011/08/16/obama-biggest-terror-fear-is-the-lone-wolf/)

"Deranged or driven by a hateful ideology" is a perfect example of two master narratives that are often proffered and treated as being mutually exclusive. The individual actor is either deranged, unbalanced, unhinged, disturbed, mad, crazy, nuts and unstable, or he/she is driven by a hateful ideology, radicalized, politically focused, inspired by some foreign 'entity', or determined to effect some social or political upheaval or policy change. In the days that follow an event such as these, the framing of the individual's motivation usually takes on one of these two narratives. The chosen narrative depends upon the easy availability of information regarding their ideological content, mental health history or personal background details.

Yet what we see from the analysis we offer here, lone actor terrorism and mass murderer attacks are (both) usually the culmination of a complex mix of personal, political and social drivers that crystalize at the same time to drive the individual down the path of violent action. Whether the violence comes to fruition is usually a combination of the availability and vulnerability of suitable targets that suit the heady mix of personal and political grievances and the individual's capability to engage in an attack from both a psychological and technical capability standpoint. Many

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

individual cases share a mixture of unfortunate personal life circumstances coupled with an intensification of beliefs that later developed into the idea to engage in violence. What differed was how these influences were sequenced. Sometimes personal problems led to a susceptibility to ideological influences. Sometimes long-held ideological influences became intensified after the experience of personal problems. This is why we should be wary of mono-causal master narratives. The development of these behaviors is usually far more labyrinthine and dynamic.

One of the major implications of comparative analyses such as this could be to provide guidance or a framework to those tasked with responding to such phenomena. Given our counter-intuitive findings on the leakage of intent, this may be particularly relevant in terms of early disruption of plots. An understanding of this complexity and the multiplicity of potential factors could help inform how threat assessments of particular lone actors should be carried out. When we talk about 'threat', and the related concept of risk, we need to consider multiple, overlapping questions including issues related to identification of threats (e.g. threat of what precisely?), exposure (e.g. under what conditions are particular offences more likely?) and management (i.e. which interventions are likely to be effective in terms of mitigating either risk, broadly speaking, or a specific threat) (Borum, 1999). The illustrations highlight that the target and/or target location of the violence was usually associated with something to do with the individual's personal grievance. This may help give us a sense of what Borum calls the 'scenarios of exposure' or the conditions under which a particular individual become a threat. The temporal issues also highlight the fact that we need to view risk dynamically. Given a set of circumstances and conditions an individual may appear to be no or low risk. However, small changes in their life-course, personal circumstances or opportunity to offend can have a force-multiplier effect and propel the individual into a higher category of risk. These issues are explored in detail by Monahan (2012) who warns however, of the need for comparison samples (including control groups) in order to scientifically validate many of the otherwise working assumptions relevant to risk assessment.

From the analysis presented in this paper, however, the actual violence conducted by lone actors and mass murderers looks very similar. We sought to examine whether their 'radicalization' trajectory toward this act of violence was also similar. The

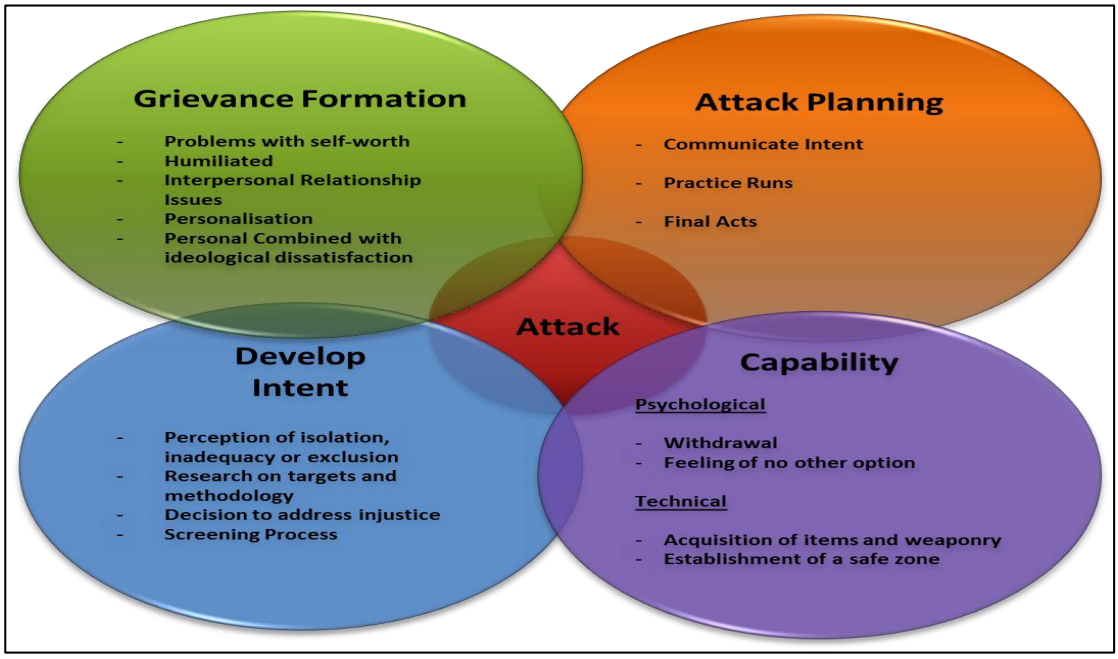
This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

analyses suggest that they share a lot in common but significant differences persist. This has a multiplicity of implications for early detection, threat management and possibly disruption. The job of intelligence analysts (be it for the police or intelligence communities) often involves assessing the scale of an individual's threat based on often fragmentary information. The analyses above do not point toward one single behavioral profile from which risk assessments can be built. They do however, help frame the types of questions that intelligence analysts can ask to get a fuller picture of the threat. In a later deliverable for this project, we return to this issue by examining how behaviors cluster together across a sizeable number of individuals (both lone actors and mass murderers). The results also highlight the fact that (a) in most cases there tends to be long-held risk factors but (b) they tend to be enabled in a force multiplier effect by much more recent situational stressors and that (c) the trajectory into violence tends to be a lengthy process. Phases may be identifiable on this process, from grievance formation to fixation to capacity building to attack planning. If an individual is identified ahead of time (say for example after leaking key information), the individual's position in this pathway can be plotted, and a range of disruption/prevention tools can be implemented from there.

In terms of indicators, the vast majority of lone actor terrorists each demonstrated elements concerning (a) their grievance, (b) an escalation in their intent to act, (c) gaining capability – both psychologically and technically and (d) attack planning (see Figure) 6.1.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Figure 6.1: Threat Assessment Framework



Finally, the routine activity studies also provided much insight from a disruption and prevention perspective. Much of the anxiety concerning the threat of lone actor terrorism stems from concerns regarding the ability to detect and intercept lone actor terrorist events before they occur. Traditional methods employed against formal terrorist organizations and loosely connected terrorist networks (such as counter-intelligence, HUMINT, interception of communications, surveillance of persons, targeted killing etc.) may not be as readily applicable against the threat of lone actor terrorists. Strategies aimed at countering radicalization in the community may have no reference point in identifying lone at-risk individuals. Deterrence measures also may prove problematic for countering lone actor terrorism. Because prediction and identification are difficult, it might be better to instead guard against future lone actor terrorists by making the actual undertaking of a terrorist attack more difficult. For example, it might be easier and more cost-efficient to deter a budding lone actor terrorist by making it more difficult to acquire the necessary bomb-making materials than by convincing him/her of counter-narratives.

In terms of future research, there are a myriad number of ways to improve our understanding. First, there has been next to no rigorous research involving interviews with lone actor terrorists or mass murderers. We are therefore lacking in a particularly

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

rich source of information, not only on radicalization, attack planning and attack commission, but also issues surrounding deradicalization and disengagement. Second, on only a couple of the key factors do we have a sense of societal base rates. An ambitious program of work is needed to assess how different prevalence rates of risk factors and their co-occurrence are against the rates found within wider society. Third, sequencing analysis like those used in chapter five do not necessarily have to involve thick qualitative case studies but can utilize quantitative approaches (like State Transition Diagrams). What has held the field back for so long is the lack of data but that is becoming increasingly less of an issue. Finally, this study (and most of the associated field) is reliant upon open-source data. Closer collaboration between academics and law enforcement agencies tasked with responding to these threats is needed. This relationship is not necessarily uni-directional (e.g. academics help practitioners) but can be a two way process where practitioners actively relay the operational difficulties they face and the practical questions they feel need addressing.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

References

A. (2013, October 3.) Jeffrey James "Jeff" Wesise- Red Lake. *Native News Today.*

Asal, V., Gill, P., Rethemeyer, R. K., & Horgan, J. (2013). Killing Range Explaining Lethality Variance within a Terrorist Organization. *Journal of Conflict Resolution*, 0022002713508927.

Bernton, H., & Carter, M. (2006, April 2). Kyle Huff's journey. *The Seattle Times.*

Borum, R. (2013). Informing Lone- Offender Investigations. *Criminology & Public Policy*, *12*(1), 103-112.

Boweden, M. (1995, June 11). On social matters, eastern and western points of view news coverage of a campus killing in Iowa provided a context for studying cultural differences. *The Philadelphia Inquirer*, p. E03.

Bowers, T. G., Holmes, E. S., & Rhom, A. (2010). The nature of mass murder and autogenic massacre. *Journal of Police and Criminal Psychology*, *25*(2), 59-66.

Cairns, E. (1987). *Caught in crossfire: Children and the Northern Ireland conflict*. Syracuse University Press.

Calhoun, F.S. & Weston, S.W. (2003). *Contemporary Threat management: A Guide for Identifying, Assessing, and Managing Individuals of Violent Intent*. San Diego, CA: Specialized Training Services.

Cole, R. (2007, December 6). Shooter lost his job Wednesday. *Omaha World-Herald,* p. 01A.

Commonwealth v. Michael McDermott, 448 Mass. 750, 864 N.E.2d 471 (Supreme Judicial Court of Massachusetts, 2007).

Connor, T. (2007, December 6). Very troubled' teen snapped after breakup with girlfriend & losing job. *Daily News,* p. 2.

Corner, E., & Gill, P. (2015). A false dichotomy? Mental illness and lone actor terrorism. *Law and human behavior*, *39*(1), 23.

Curran, D. (1984). Juvenile offending, civil disturbance and political terrorism: A psychological perspective. *unpublished paper*.

Davey, M., & Harris, G. (2005, March 26). Family wonders if Prozac prompted school shootings. *New York Times.*

DeLisi, M., Hochstetler, A., Scherer, A. M., Purhmann, A., & Berg, M. T. (2008). The Starkweather Syndrome: exploring criminal history antecedents of homicidal crime sprees 1. *Criminal Justice Studies*, *21*(1), 37-47.

DePalma, A. (1992, April 8). Iowa city journal; town faces its ghosts without anger. *The New York Times,* p. 17.

Drysdale, D. A. (2010). *Campus attacks: Targeted violence affecting institutions of higher education*. DIANE Publishing.

Duwe, G. (2000). Body-Count Journalism The Presentation of Mass Murder in the News Media. *Homicide Studies*, *4*(4), 364-399.

Eggen, D., & Hedgpeth, D. (2005, March 29). Juvenile arrested in Minn. Shootings; Suspect might be charged as adult. *The Washington Post*, p. A01.

Elliot, R., & Lockhart, W. H. (1980). Characteristics of scheduled offenders and juvenile delinquents'. *A Society Under Stress: Children and Young People in Northern Ireland*.

Emery, T. (2000, December 27). Seven slain inside office; co-worker in custody. *South Bend Tribune,* p. A1.

Farrington, D. P., & Loeber, R. (1999). Transatlantic replicability of risk factors in the

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

development of delinquency. *Historical and geographical influences on psychopathology*, 299-329.
Farrington, D. P., Ttofi, M. M., Crago, R. V., & Coid, J. W. (2015). Intergenerational Similarities in Risk Factors for Offending. *Journal of Developmental and Life-Course Criminology*, *1*(1), 48-62.
Fein, R. & Vossekuil, B. (1999). Assassination in the United States: An operational study of recent assassins, attackers, and near-lethal approachers. *Journal of Forensic Sciences*, *44*, 321-333.
Fein, R. A., & Vossekuil, B. (1999). Assassination in the United States: an operational study of recent assassins, attackers, and near-lethal approachers. *Journal of Forensic Sciences*, *44*(2), 321-333.;
Fein, R. A., & Vossekuil, B. (1999). Assassination in the United States: an operational study of recent assassins, attackers, and near-lethal approachers. *Journal of Forensic Sciences*, *44*(2), 321-333.
Florez-Morris, M. (2007). Joining guerrilla groups in Colombia: Individual motivations and processes for entering a violent organization. *Studies in Conflict & Terrorism*, *30*(7), 615-634.
Forliti, A. (2005, March 23). An obsession with death; Teen shooter's story was one of 'devastation and loss.' *Hamilton Spectator*, p. A15.
Fox, J. A., and M. W. Zawitz. 2007. *Homicide trends in the United States*. Washington, DC: Bureau of Justice Statistics. http://bjs.gov/content/pub/pdf/htius.pdf
Fox, J. A., Burgess, A. W., Levin, J., & Wong, M. (2006, July 17). Panel report on the March 25, 2006 Capitol Hill shooting.
Getlin, J. (2000, December 28). If anyone, 'it would be him'; Michael McDermott was a self-taught computer whiz. The quiet, hulking man 'schmoozed' with colleagues minutes before the shooting. *Hamilton Spectator*, p. B03.
Gill, P. (2015). *Lone actor Terrorists: A Behavioural Analysis*. Routledge.
Gill, P., & Horgan, J. (2013). Who Were the Volunteers? 1 The Shifting Sociological and Operational Profile of 1240 Provisional Irish Republican Army Members. *Terrorism and Political Violence*, *25*(3), 435-456.
Gill, P., Horgan, J., & Deckert, P. (2014). Bombing Alone: Tracing the Motivations and Antecedent Behaviors of Lone- Actor Terrorists. *Journal of forensic sciences*, *59*(2), 425-435.
Goldberg, C. (2000, December 27). 7 die in rampage at company; co-worker of victims arrested. *The New York Times*, p. 1.
Guerino, P., Harrison, P. M., & Sabol, W. J. (2011). Prisoners in 2010. *Bureau of Justice Statistics, Washington, DC*.
Gunderson, D. (2005, March 23). Who was Jeff Weise? *Minnesota Public Radio.* Retrieved from http://news.minnesota.publicradio.org/features/2005/03/22_ap_redlakesuspect/
Haga, C. (2005, March 26). Shattered relatives seek answers; Teen gunman in school shooting had been on Prozac for depression, family members say. *The Globe and Mail*, p. A13.
Hanners, D. (2005, March 22). School-shooting suspect admired Hitler. *Pioneer Press.*
Hanners, D. (2005, March 23). FBI to examine traits of teen gunman. *Pioneer Press.*
Hedgpeth, D. (2005, March 27). Tribe responds to killings with grief rather than anger. *The Washington Post*, p. A03.
Hempel, A. G., & Richards, T. C. (1999). Offender and offense characteristics of a

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

nonrandom sample of mass murderers. *Journal of the American Academy of Psychiatry and the Law Online*, *27*(2), 213-225.
Hirschi, T., & Gottfredson, M. (1983). Age and the explanation of crime. *American journal of sociology*, 552-584.
Horgan, J. (2009). *Walking away from terrorism: accounts of disengagement from radical and extremist movements*. Routledge.
Horgan, J. (2014) *The Psychology of Terrorism 2nd Edition*. London: Routledge
Horgan, J. (2014) The Psychology of Terrorism. 2nd Edition. London: Routledge
Huffstutter, P. J. (2005, March 29). 2nd teen is linked to school shooting. *Los Angeles Times*
Hughes, A. (2005, April 18). Feds: Assault at Red Lake over in nine minutes. *Minnesota Public Radio.* Retrieved from http://news.minnesota.publicradio.org/features/2005/04/18_hughesa_redlakeupdate/
Johnson, K. (2000, December 28). In wake of killings, strands of suspect's life. *The New York Times*, p. 1.
Johnson, M. C., Morris, R. G., & Menard, S. (2012). Historical invariance in delinquency causation: a test of equivalent models of delinquency for two generations of adolescents. *Crime & Delinquency*, 0011128712446051.
K. Huff, personal communication, March 23, 2006.
Kasindorf, M. (2006, March 30). Rave scene not to blame, says Seattle mayor; 'Disturbed' man, not techno music, blamed in killings. *USA Today*, p. 3A.
Konigsber, E. (2007, December 8). From 'troubled' to 'killer,' despite many efforts. *The New York Times*, p. 1.
LaFree, G. (2013). Lone- Offender Terrorists. *Criminology & Public Policy*, *12*(1), 59-62.
Langman, P. (2009). Rampage school shooters: A typology. *Aggression and Violent behavior*, *14*(1), 79-86.Lankford, A. (2013). A comparative analysis of suicide terrorists and rampage, workplace, and school shooters in the United States from 1990 to 2010. *Homicide studies*, *17*(3), 255-274.
Lankford, A. (2012). A comparative analysis of suicide terrorists and rampage, workplace and school shooters in the United States from 1990 to 2010. *Homicide Studies*, *17*(3), 255-274.
Lee, J. R. (2005, July 24). Shooter's motive remains a mystery; months later, those close to 16-year-old Jeffrey Weise still find his actions hard to believe: Red Lake shooting. *Wisconsin State Journal*, p. A1.
Lovett, I., Nagourney, A. (2014). 'Deadly rampage in college town after video rant', New York Times. 25 May.
Lyons, H. A., & Harbinson, H. J. (1986). A comparison of political and non-political murderers in Northern Ireland, 1974–84. *Medicine, Science and the Law*, *26*(3), 193-198.
MacQuarrie, B., & Klein, R. (2000, December 28). Seven victims were methodically targeted, court told: bomb-making equipment found in accused's apartment. *Edmonton Journal*, p. A4.
Marriott, M. (1991, November 3). Gunman in Iowa wrote of plans in five letters. *The New York Times, p. 26.*
Marriott, M. (1991, November 4). Iowa gunman was torn by academic challenge. *The New York Times.*
Marshall, S. & Bullard, C. (1991, November 4). Killer coveted award // Iowa Ph.D called 'cold blooded.' *USA Today*, p. 2A.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

McCauley, C., Moskalenko, S., & Van Son, B. (2013). Characteristics of lone-wolf violent offenders: A comparison of assassins and school attackers. *Perspectives on Terrorism*, *7*(1).

McPhee, M., Saltonstall, D., & Goldiner, D. (2000, December 27). Man slays 7 in web office biz was to hold his wages to IRS. *The Patriot Ledger,* p. 3.

Meloy, J. R., Hempel, A. G., Mohandie, K., Shiva, A. A., & Gray, B. T. (2001). Offender and offense characteristics of a nonrandom sample of adolescent mass murderers. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*(6), 719-728.

Meloy, J. R., Hempel, A. G., Mohandie, K., Shiva, A. A., & Gray, B. T. (2001). Offender and offense characteristics of a nonrandom sample of adolescent mass murderers. *Journal of the American Academy of Child & Adolescent Psychiatry*, *40*(6), 719-728.

Menard, S., & Johnson, M. C. (2015). An intergenerational test of integrated theory. *Deviant Behavior*, *36*(2), 87-100.

Merari, A. (2010). *Driven to death: Psychological and social aspects of suicide terrorism*. Oxford University Press.

Monahan, J. (2012). The individual risk assessment of terrorism. *Psychology, Public Policy, and Law*, *18*(2), 167.

Montero, D., & Connor, T. (2000, December 28). Gruesome details of a 'methodical' spree; police: gunman blew away door to reach victims. *The New York Post,* p. 004.

Morales, T. (2005, April 12). Red Lake massacre took 3 minutes. *CBS.*

Myers, S. L. (1991, November 2). Student opens fire at U. of Iowa, killing 4 before shooting himself. *The New York Times,* p. 8.

Newman, M. (2006, March 28). Settle police and partygoers still puzzle over attack. *The New York Times,* p. 10.

Nichols, A. (2007, December 8). After penning rambling suicide letter… camera catch final act of Neb. gunner. *Daily News,* p. 5.

Overbye, D. (2007, March 27). A tale of power and intrigue in the lab, based on real life. *The New York Times,* p. 3.

Postman, D., Sullivan, J., & Carter, M. (2006, March 26). North Seattle man is suspected shooter. *The Seattle Times.*

Rave, J. (2005, July 10). Why did Jeffrey do it? *Lincoln Journal Star*, p. 1.

Reinares, F. (2004). Who are the terrorists? Analyzing changes in sociological profile among members of ETA. *Studies in Conflict and Terrorism*, *27*(6), 465-488.

Roach, J. (2007). Those who do big bad things also usually do little bad things: Identifying active serious offenders using offender self-selection. *International Journal of Police Science & Management*, *9*(1), 66-79.

Roberts, N. (2006, March 28). Party killer was polite-landlord never saw guns. *The Daily Telegraph,* p. 15.

Roe, A., Krishnan, S., & Siderius, C. (2007, December 27). Suspects arrested in slayings near Seattle; The victims were killed on Christmas Eve but their bodies were not found until Boxing Day morning. *The Vancouver Sun,* p. A4.

Rosario, R. (2013, November 26). Weise planned a far more lethal assault. *Pioneer Press.*

Safranek, L. (2007, December 7). Gun seen on videotape Von Maur's cameras show Robert Hawkins toting an AK-47. *Omaha World-Herald,* p. 01A.

Sageman, M. (2004). Understanding terror networks.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

Saulny, S. (2007, December 8). In photos and notes, new details on shootings. *The New York Times.*
Schmidt, A. P., & Jongman, A. I. (1988). Political terrorism. *A Research Guide to Concepts, Theories, Databases and Literature, Amsterdam and New Brunswick.*
Silke, A. (2001). The devil you know: Continuing problems with research on terrorism. *Terrorism and Political Violence, 13*(4), 1-14.
Silke, A. (2004). The road less travelled: recent trends in terrorism research. *Research on terrorism: trends, achievements and failures*, 186-213.
Sims, P. (2005, March 24). School killer's cartoon predicted massacre. *The Evening Standard,* p. 19.
Spencer, K. (2007, December 6). Six deadly minutes in the end, Hawkins made good on threats. *Omaha World-Herald,* p.01A.
Stolzenberg, L., & D'Alessio, S. J. (2008). Co-offending and the age-crime curve. *Journal of Research in Crime and Delinquency, 45*(1), 65-86.
Tracy, P. E., & Kempf-Leonard, K. (1996). *Continuity and discontinuity in criminal careers.* Springer Science & Business Media.
United States Department of Justice. Federal Bureau of Investigation. Uniform Crime Reporting Program Data: Supplementary Homicide Reports, 2000 - 2012.
Unnamed Author (1991, November 4). Campus shooting planned in detail by angry student. *Hamilton Spectator*, p. A8.
Unnamed Author (2005, March 23). School gunman stole police pistol, vest student killed 9 before turning weapon on himself. *CNN.*
Unnamed Author (2005, March 23). Shooter obsessed with violence. *Fox News.*
Unnamed Author (2007, April 14). Conviction upheld in killing of 7 in Wakefield; Former Marshfield man loses appeal to high court. *The Patriot Ledger,* p. 16.
Unnamed Author (2007, December 5). Gunshots, screams and 8 slain in Omaha. *St. Paul Pioneer Press,* p. A1.
Unnamed Author (2007, December 6). 'It happened to us' AK-47-style semiautomatic assault rifle. *Omaha World-Herald.*
Unnamed Author (2007, December 6). 'Very troubled' teen just fired from job and fixated on death, pals say. *Daily News.*
Unnamed Author (2007, December 6). 8 dead in mall massacre-madman picks off holiday shoppers. *The New York Post.*
Unnamed Author (2007, December 6). Holiday horror. *Daily News.*
Unnamed Author (2007, December 6). Police investigation begins police search crime scene, gunman's residence. *Omaha World-Herald.*
Unnamed Author (2007, December 6). The Nebraska gunman: Robert Hawkins. *Guardian Unlimited*
Unnamed Author (2007, December 7). Police: nine killed in shooting at Omaha mall, including gunman. *CNN.*
Unnamed Author (2007, December 8). Police release Hawkins' two suicide notes and a will. *Omaha World-Herald.*
Vossekuil, B., Fein, R. A., Reddy, M., Borum, R., & Modzeleski, W. (2002). The final report and findings of the Safe School Initiative. *US Secret Service and*
Vossekuil, B., Fein, R., Reddy, M., Borum, R., & Modzeleski, W. (2002). *The Final Report and Findings of the Safe School Initiative: Implications for the Prevention of School Attacks in the United States.* Washington, DC: U.S. Department of Education and U.S. Secret Service.
Zeleny, J., & Konigsber, E. (2007, December 7). Searching for clues to a young killer's motivation. *The New York Times,* p. 24.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.

This document is a research report submitted to the U.S. Department of Justice. This report has not been published by the Department. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.