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RECRUITING FOR THE LONG TERM: EXPLORING THE EFFECTS OF TERRORIST  
RECRUITMENT STRATEGIES ON GROUP LONGEVITY

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## ABSTRACT

*Scholars of terrorism have explored several factors in an attempt to explain why some terrorist groups are long lasting while others are short-lived. An important factor that has gone unanalyzed in connection with group longevity, due largely to a severe dearth of open source data on the variable, is terrorist group recruitment. Testing two sets of competing hypotheses, this thesis examines the effects of two terrorist group recruitment strategies – direct recruitment and indirect recruitment – on group longevity. Conducting a series of negative binomial regression estimations using the Profiles of Perpetrators of Terrorism-United States (PPT-US) dataset, I find that terrorist groups that use indirect recruitment tools are significantly more likely to live longer than groups that do not incorporate these tactics in their recruitment practices. Indirect recruitment methods, the results show, yield the greatest boost in group longevity relative to other recruitment strategies. This finding likely holds important implications for both the understanding and future study of terrorist group recruitment and survival in the New Media age.*

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## I. Introduction

Why do some terrorist organizations last longer than others? Scholars of terrorism have, in more recent years, attempted to answer this question by identifying and examining a number of features that contribute both to terrorist groups' longevity and demise. Some of these features have included the ways in which terrorist groups end, (Cronin 2006, 2009; Jones and Libicki 2008); the speed and magnitude of their emergence (Miller 2012); their tactics, peak sizes, ideologies, regional locations, and base-country characteristics (Blomberg, Gaibulloev, and Sandler 2011); group competition or "outbidding" (Young and Dugan 2014); and, most recently, groups' participation in violent rivalries (Phillips 2015). How is it that a vast majority of terrorist organizations – nearly 70%, as evidenced by both the Global Terrorism Database and Young and Dugan's study – cease operations within their first year, while others have survived for well over 50?

The rise in literature on the topic of terrorist group longevity in the past decade points to an important shift in the field of study on terrorism. Whereas early analyses focused primarily on determining what makes terrorist groups *form*, current studies reflect a heightened interest in finding out, first from a counterterrorism perspective, what makes terrorist groups *end*, and second, from group and country-level frameworks, what makes terrorist groups *last*. While all terrorist organizations constitute a security threat, at the very least to their immediate environment but also, oftentimes, to the larger international community, those that find ways to beat the odds and sustain long-term activity are of particular concern and policy interest. Crafting appropriate counterterrorism strategies for terrorist groups and movements that endure, however, cannot be achieved first without a firm understanding of what, in particular, is causing them to outlast the majority of their counterparts. The more evidence we can find that certain factors

influence the chances of terrorist groups having longer life-spans, the better policymakers and counterterrorism officials can tailor their efforts to reduce the threat of terrorist groups worldwide.

In this study, I explore a feature of terrorism that has not yet been analyzed in the literature on terrorist group longevity; one that I suggest is a highly important element influencing why some groups last longer than others: recruitment. If indeed the primary goal of any terrorist organization is to survive (Crenshaw 1987), then a member base, first and foremost, is essential. In other words, a terrorist group's survival depends on its ability to attract and retain a following; individuals that will adhere to and remain dedicated to the group's cause over time. Therefore, I propose that the way in which a terrorist group recruits (i.e. the recruitment strategy it employs in gaining new members) has an important effect on the organization's life span.

Not only has terrorist recruitment strategy not been considered in conjunction with group longevity; it is also one of the only measurable features that reflects a group's own physical and specific competency to ensure its survival. Most studies thus far have centered on contributing factors to group longevity that are external to the groups themselves and essentially outside of their control (e.g. country-level characteristics, the formation of competitor groups in the region), or are organization-level but not *action*-based variables (e.g. peak size, ideology). Recruitment, by contrast, is a specific facet of terrorist group operation that is directly and deliberately controlled by the group. It is a good indicator not only of a group's action and ability, but of the larger environment in which the group is operating as well.

The relationship between terrorist group recruitment and group longevity is an important one. If it turns out that a particular recruitment strategy is associated with longer-lasting terrorist groups, it would be in policy officials' interests to study that strategy at length so as to

understand it, be able to recognize it in context, and work to prevent or impede terrorist groups from successfully and continually utilizing it. Halting recruitment would mean stopping the expansion of terrorist groups, and ultimately their longevity. Targeted efforts, however, can only materialize with more extensive information about, and analysis on, terrorist recruitment's effects on group life span. It is my hope that my contribution advances these efforts.

I begin by identifying several significant gaps and debates in the literature on both terrorist group longevity and terrorist group recruitment, examining key studies on these topics. I then present my theoretical frameworks, describing the ways in which using different terrorist recruitment strategies might affect how long a group survives. At the conclusion of this section, I offer the hypotheses to be tested in the analysis section of the paper.

Next, I discuss the study's research design and its inclusion variables, then test my hypotheses using data from the Profiles of Perpetrators of Terrorism in the United States (PPT-US) dataset, which provides information on groups and movements that perpetrated terrorist attacks within the United States between 1970 and 2011. This dataset is the only publicly available one to date that contains data on terrorist group recruitment variables. I analyze and discuss the results of the quantitative analyses, taking the data limitations and their ramifications into account. Finally, I conclude by summarizing my research findings and discussing their implications for counterterrorism efforts as well as for the future study of terrorist group recruitment and longevity.



## II. Literature Review

Before the turn of the new decade, few terrorism scholars had empirically examined either of the main variables of interest in this paper. Terrorist group longevity<sup>1</sup>, as previously mentioned, has since experienced a significant surge in interest and formal study, while the topic of terrorist group recruitment has received much more limited attention. Reviewing the range of research on these two subjects, I find six principal and critical shortcomings.

The most obvious gap warranting my research is that none of the studies of terrorist group longevity to date have explored the role different recruitment techniques might play in affecting group survival. While several potential determinants of group longevity have been analyzed in the literature, terrorist group recruitment strategies have neither been considered nor thoroughly investigated. This current limitation, first and foremost, lays the appropriate foundation for this study.

Second, most studies of terrorist group longevity analyze determinants that do not reflect a group's own deliberate, physical efforts to ensure its continued operation and survival. Instead, these studies focus on more abstract group characteristics, such as group ideology (Blomberg, Gaibullov, and Sandler 2011; Cronin 2006; Gaibullov and Sandler 2013; Jones and Libicki 2008), or variables that cannot be realistically or easily manipulated by the group itself. These factors include things like the group's regional location and whether the home-base government is a democracy (Blomberg, Engel, and Sawyer 2010; Blomberg, Gaibullov, and Sandler 2011; Gaibullov and Sandler 2013); whether there are competing violent groups operating in the same

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<sup>1</sup> For clarification, in this paper I differentiate between terrorist group *longevity* or *survival* and terrorist group *demise*. Since the purpose is to explore factors, such as recruitment, that specifically affect how long terrorist groups *last*, I leave out studies that examine the ways in which terrorist groups *end* (e.g. decapitation, arrests, negotiations, transition into the political process, etc.)

country or region (Phillips 2015; Young and Dugan 2014); whether the group receives state support (Carter 2012); and the home-state's overall strength and counterterrorism capability (Young and Dugan 2010). Two of the only features to have been studied in connection with group longevity that are directly controlled by terrorist groups themselves are their attack types (e.g. bombings, armed assaults, kidnappings, infrastructure attacks, etc.) and their lethality, measured by the number of casualties garnered across attacks (Blomberg, Gaibullov, and Sandler 2011). For example, groups that diversify their attacks by using multiple tactics and that cause greater carnage are found to survive longer on average (2011). By looking at terrorist recruitment and its effects on group duration, I analyze a specific facet of terrorist group *activity* that reflects physical actions taken by the group to guarantee its survival, and that speaks to a group's own capacity to endure. The vast majority of the literature has so far failed to look at such features.

Third, no studies analyzing terrorist group recruitment strategies have done so in a quantitative fashion. As data on recruitment practices are particularly hard to come by, given how difficult they are for researchers to collect and quantify, all publicly available analyses thus far have been qualitative, descriptive examinations, typically of individual case studies. The PPT-US dataset, specifically, has not been tapped into for quantitative information on terrorist group recruitment tactics, or on other variables, for that matter, at least in the formal, published literature. Therefore, this research is the first to analyze not only quantitative recruitment data but also the PPT-US set in general.

Fourth, the descriptive studies of terrorist group recruitment have looked overwhelmingly at the recruitment campaigns of Islamist terrorist groups and movements (Kohlmann 2006; Neumann and Rogers 2007; Taarnby 2005), especially al-Qaeda (Fair 2004; Gerwehr and Daly

2006; Kamolnick 2014; Neumann 2008; Rosenau 2005) and its affiliates, such as al-Qaeda in the Arabian Peninsula (Hegghammer 2006, 2013). Far fewer analyses on recruitment have focused attention on terrorist organizations with other ideologies, like extreme right-wing (Blazak 2001; Waltman 2003) and extreme left-wing groups (Della Porta 1988; Ortiz 2005; Weinberg and Eubank 1987), or on groups in more diverse regional locations. Because this study looks at all terrorist organizations – of any ideology and from any location worldwide – that have committed terrorist attacks against targets in the United States from 1970 to 2011, a broader and more diverse set of groups is represented.

Fifth, there are conflicting views among terrorism scholars, particularly those who have studied Islamist terrorist organizations and the global jihad, regarding the active roles recruiters versus recruits play in the recruitment process. In other words, a notable “top-down, bottom-up” recruitment debate exists in the literature on terrorist group recruitment (Bokhari et al. 2006; Neumann 2008; Taarnby 2005). Some scholars argue that recruitment is largely a top-down process in which group recruiters actively seek out and contact potential recruits (Hegghammer 2006, Weimann 2005), while others maintain that there is little to no actual evidence of this; that recruitment is almost always a bottom-up, self-selected process rather than a top-down “seek out and recruit” process (Cronin 2009; Henke 2009; Sageman 2004). The current study controls for this apparent debate by focusing on two strategies that terrorist groups use to actively recruit *and/or* accept potential recruits. These variables, discussed in the following section, and the larger analysis therefore encompass all possible “top-down” and “bottom-up” (self-recruitment) possibilities.

Finally, the literature on terrorist recruitment reveals a second important debate, concerning whether recruitment actually occurs through indirect, non face-to-face mediums,

particularly through the Internet. While several scholars have found very few accounts of terrorist organizations truly recruiting new members online, without a face-to-face interaction at any point (Hegghammer 2013; Sageman 2004; Weimann 2005), others find that recruitment into terrorist groups does in fact happen over the Internet (Chermak, Freilich and Suttmoel 2013; Conway 2006; Hoffman 2010; Keene 2011). Most at the very least acknowledge the gravity of the Internet as a propaganda dissemination, radicalization, and recruitment-priming tool; one that is quickly changing the game of terrorist group recruitment and increasingly risks becoming a more significant venue for it (Denning 2009; Homeland Security Institute 2009; Neumann and Rogers 2007; Weimann 2005). In analyzing two recruitment variables that cover both sides of the argument, this study addresses and controls for this important debate in the literature as well. Furthermore, since the time frame used in the analysis spans dates before and after the advent and widespread use of the Internet, the analysis includes both groups that did not have access to the Internet for recruitment purposes as well as groups that used or have been able to use it in their efforts to recruit new members. This also allows for greater variation in the included groups and in the recruitment variables of interest.

### **III. Theory**

Crenshaw's (1987) theory that the foremost goal of all terrorist groups is simply to survive lays the basic groundwork for the following theoretical arguments and the subsequent hypotheses presented. Seeking out additional theories that consider the role group recruitment plays in influencing group longevity, I find that a firm consensus appears in the literature: terrorists' ability to attract new recruits and maintain group membership support is critical to the

long-term organizational as well as operational success of any terrorist organization (Chermak, Freilich and Suttmoeller 2013; Oots 1989). Successful recruitment, therefore, is essential for group survival (Crenshaw 2006).

No established theoretical stories linking *how* terrorist groups recruit to how long they last exist in the current literature; however, I argue there is reason to believe that using particular recruitment tactics should act to boost or shorten the life span of a terrorist organization. I therefore expand on the basic premise that recruitment is key to group longevity and success to create my own theories regarding the relationship between group recruitment and duration. Before looking at the two recruitment strategies of interest in this paper, I offer what I find to be three major ways any recruitment tactic, generally speaking, should impact a terrorist organization's longevity.

First, I suspect that different recruitment methods earn groups different numbers of new recruits. In other words, not every recruitment strategy or tool ought to yield the same number of new members joining the group. Some strategies likely work better than others for recruiting larger pools of individuals, while some might produce more limited numbers of recruits. This factor, the number of recruits joining the terrorist organization, certainly affects how long groups last, as groups cannot survive without a continual member base and larger groups are found to live longer than smaller terrorist groups (Blomberg, Gaibulloev, and Sandler 2011; Gaibulloev and Sandler 2013; Jones and Libicki 2008). All else equal, groups with more members should have greater capability and capacity in activities like planning and committing attacks, recruiting, and mobilizing resources, which allows them to sustain operations longer than groups with fewer members (Jones and Libicki 2008). Terrorist group longevity is therefore expected to increase

with the size of the group; a feature that, I propose, is largely determined by the recruitment method or methods the group employs.

Second, I theorize that different recruitment techniques earn groups different *kinds* of recruits, with some strategies potentially yielding “low-quality” members and others yielding “high-quality” individuals, based on their level of experience, education, skill, interest in and dedication to the group’s cause. The quality of individuals comprising the terrorist group, in turn, ought to influence how long it lasts. Skilled and dedicated members, for example, are expected to boost overall organizational success; to “increase the campaign of terrorist violence” by assisting in operations like mobilizing resources, recruiting, fundraising, or planning and carrying out regular attacks (Bueno de Mesquita 2005); and to remain in the group for a longer period of time. On the other hand, inexperienced, unskilled, or fickle recruits – for example, those simply seeking excitement or danger for personal motives – might negatively impact overall organizational and operational success (Hegghammer 2013); compromise the group’s security and objectives (Forest 2006); leave the group after a short period of time; or be kicked out of the group (Crenshaw 1981). In this way, the quality of recruit garnered from recruitment is expected to affect the life span of a terrorist organization.

Lastly, I propose that the strategies terrorist groups use to recruit reflect their overall level of visibility, popularity, strength, and support; factors that, if highly present, are generally expected to increase both recruitment into the group as well as group longevity (Cronin 2006, 2009; Faria and Arce 2005). Terrorist organizations that distribute propaganda, call for recruitment, and recruit in a setting visible to the general public or authorities – for instance, in public centers of activity like religious institutions, charities, prisons, training camps, and school grounds (Gerwehr and Daly 2006) – might gain or already have better community support and

attract more recruits than groups that do not market themselves, recruit entirely privately, or advertise and operate largely underground. It may also be the case that groups with more visible recruiting practices are stronger, better organized, and have more resources with which to orchestrate recruitment processes than those that recruit in primarily clandestine forums. Or, they could be struggling to survive and are therefore in desperate need of visibility, support, and new members. In either scenario, all of these factors – strength, organization, and especially resource supply – are likely to contribute to a terrorist group’s longevity (Levitt 2008; Shapiro 2007).

Using these initial theoretical frameworks, I now examine two different strategies that terrorist groups use to actively recruit and/or accept new members, and explore their impacts on group duration. These strategies are “direct recruitment” and “indirect recruitment.” Their definitions are taken from the PPT-US dataset codebook: “Direct recruitment” refers to recruitment that involves face-to-face interactions, and “indirect recruitment” refers to recruitment that involves political announcements and exhortations through newspapers, radio, television, or the Internet (Miller and Smarick 2013). Because no one has studied the potential links between terrorist groups’ use of these methods and group life span, and because I believe there are a number of plausible possibilities among these variables, I consider four different angles: why groups using direct recruitment strategies should have a high longevity; why groups using direct recruitment strategies should have a low longevity; why groups using indirect recruitment strategies should have a high longevity; and why groups using indirect recruitment strategies should have a low longevity. I give theoretical explanations for each, arriving at two sets of competing hypothesis to test in the next section’s analysis.

Terrorist groups that use direct recruitment methods recruit and receive new members through in-person interactions. The recruiter and the recruit are able to not only see and speak

directly to each other, but also to perceive one another's body language, tone of voice, and behavior during the recruitment process. This physical interaction, first and foremost, lends itself considerably to fostering the intimate relationships and social connections upon which terrorism and terrorist recruitment so heavily rely (Crenshaw 1981; Sageman 2004). Al-Qaeda, perhaps better than any other terrorist group or network, has understood and epitomized this concept. Intimacy and tailored personal appeals have always been essential rules of recruitment for the al-Qaeda network, which has, over the years, successfully used the power of one-on-one verbal communication and individualized, persuasive recruitment pitches to directly attract, inspire, and manipulate new recruits (Gerwehr and Daly 2006). The organization's dedication to relationship-building and to the inclusion of direct strategies in its recruitment practices likely explain, at least in part, its long life span of 27 years.

Applying Hegghammer's (2013) conceptualization of recruitment as a trust game between recruiter and recruit, I theorize that, in a direct recruitment context, a recruiter can also better screen for a recruit's quality and level of commitment to the terrorist organization, given the physical proximity of the two parties. Therefore, using a direct, face-to-face recruitment strategy, a recruiter can be more selective in the recruits he accepts. He can also have more confidence that "what he sees" is "what he'll get" from a new recruit in terms of apparent skill, reliability, and dedication. In other words, terrorist groups that recruit directly are expected to have higher-quality, more dedicated members in their ranks than groups that do not conduct direct, face-to-face recruitment. These higher-quality members, in turn, should positively contribute to a group's continued survival. Hegghammer's (2013) account of an al-Qaeda in the Arabian Peninsula (AQAP) recruitment campaign in Saudi Arabia provides a good example of this. AQAP recruiters would solicit signs of potential recruits' qualifications, commitment,



trustworthiness, and honesty by having them undergo lengthy screening conversations, rituals, and exercises (12). The individuals who passed the extensive screening were admitted membership into AQAP and those who did not were rejected from entering the group. AQAP, which has been active since January 2009, is today considered to be one of the strongest and most active of al-Qaeda's affiliates (Council on Foreign Relations 2015).

Furthermore, groups that use direct recruitment strategies and recruit more in the "open underground" (Begin 1951) – for example in a religious facility, political meeting, or school campus – irrespective of or despite possible interference from authorities, may already have higher overall local visibility, support and strength. Each of these, in turn, should theoretically act to boost group longevity. The logic here is that the group is strong enough to directly recruit "above ground," whether that means it already has some sort of support or control in the local community, or does not fear detection by law enforcement officials. The Ku Klux Klan (KKK), which has recruited its members largely in visible settings like fraternal organizations and Protestant churches since 1865, and Aryan Nations, another U.S.-based, extreme right-wing terrorist group that recruited by hosting social and educational events like youth activities summits between 1974 and 1999, represent this reasoning (Miller and Smarick 2013). The KKK and Aryan Nations, in their peak years, (for the KKK, the 1920s through the 1930s and for the Aryan Nations movement, between 1978 and 1983) were nationally-known and supported organizations, with tens of thousands and thousands of members, respectively. They also enjoyed – or still enjoy, in the KKK's case – high longevities. I suspect that this feature might be reflective of their direct and relatively public recruitment practices. Therefore, considering each of the possibilities outline above, I present my first hypothesis:

*H1a: Terrorist groups that use direct recruitment strategies have a higher longevity than groups that do not utilize direct methods in their recruitment practices*

I also find reasons, however, why direct recruitment strategies should theoretically act to decrease a terrorist group's chances of survival, and therefore its longevity. Though recruiters are able to be more selective in face-to-face recruitment contexts and screen for higher-quality individuals to join their organization, in being selective they might reject a number of recruits who, if anything, would have at least increased the size of the group. Selectivity in recruitment, then, means a smaller number of people are joining the organization than if the group simply sought out or accepted any kind of recruit, regardless of his or her level of skill and dedication. Therefore, groups that use direct recruitment methods could be expected to be smaller in size; a factor that is associated with lower group longevity.

Direct recruitment interactions also take time. Unless the organization is large and has many members with which to conduct one-on-one recruitment conversations, a small number of individuals may be tasked with recruiting people for the terrorist group. Since they must take the time, energy, and resources to physically meet with the potential recruits, they might not realistically be able to recruit as many members as easily as those who recruit people over the Internet, for example. Furthermore, there is reason to believe that some terrorist organizations using direct recruitment may also have very low levels of local visibility, popularity, support, and strength. Groups who recruit face-to-face may do so only in more underground contexts, such as in private homes and lectures (Hegghammer 2006, 2013), to avoid detection by the immediate community and the police. Such groups, those who recruit with direct methods at the most clandestine level and have little visibility to anyone other than the group members themselves, may presumably be smaller in size and possibly even weaker within the local

population. Minutemen American Defense (MAD), a nativist, anti-immigration, border patrol splinter group of the U.S.-based Minutemen Civil Defense Corps provides a good example. MAD recruited through private, direct methods in the southwestern United States and consisted of no more than twenty individuals at its peak membership (Miller and Smarick). The group only committed one attack during its two years of operation from 2007 to 2009, after which it gained more publicity but ceased operations due to its founder's arrest and incarceration (START; Miller and Smarick). Analyzing this case and for the reasons outlined prior, I decide to test the following hypothesis:

***H1b:** Terrorist groups that use direct recruitment strategies have a lower longevity than groups that do not utilize direct methods in their recruitment practices*

The next set of theoretical stories explores the link between groups' using indirect recruitment, which involves political pronouncements and calls for recruitment through newspapers, radio, television, or the Internet, and groups' consequent high or low longevity. Again, I present what I believe are plausible points of view for both sides.

First, if a terrorist organization can recruit using indirect methods, this likely means that it has more resources readily available to it than groups that do not use indirect strategies. Printing recruitment materials such as flyers and pamphlets, creating advertisements on the radio or TV, or running a working website are activities that can require a considerable amount of funds, especially if they occur repeatedly over time. Groups that are able to continually pay these expenses and attract recruits through recurrent indirect recruitment practices, therefore, are probably better financed and thus in a better position to sustain operations for longer periods of time. Al-Qaeda, the KKK, and Aryan Nations again fall into this category of groups, as they

have or had been historically well-funded and able to recruit through indirect methods such as magazines, newsletters, flyers, and the Internet (Burriss, Smith and Strahm 2000; Gerwehr and Daly 2006; Ray and Marsh II 2001).

Additionally, because they have more recruiting options at their disposal, groups incorporating indirect recruiting techniques may have an advantage when it comes to the number of recruits they can attract. Not only can they disseminate personalized recruitment messages to individuals in their immediate circles, but they also have the means to reach and attract a much wider pool of recruits, in a wider range of locations, through the various instruments mentioned above. This reach, and therefore the potential for a large number of new recruits, is furthermore multiplied significantly for terrorist organizations that have a web presence and recruit over the Internet. The Animal Liberation Front, for example, an international network of terrorist cells that commits attacks in pursuit of animal rights and recruits almost exclusively online, has as many as 10,000 members in its ranks and has lasted since 1972 (Miller and Smarick). A greater availability and steadier influx of new members, therefore, should act to boost a group's survival time.

Indirect recruiters have the option to broadly target a population, distributing the same recruitment message consistently across various mediums so as to attract as many people as possible, or they have the option to tailor their messages to specific audiences. With the tools to experiment with advertising, marketing, and message customization, groups using indirect recruitment strategies might also be in a better position to lure the specific type of individual they want for their organization; people with certain skillsets and personal characteristics, or possibly recruits from specific locations (Shane and Hubbard 2014). In this way, they may be able to attract high-quality recruits that will assure the group's continued operation.

Furthermore, terrorist groups' using indirect recruitment techniques might be a sign that they already enjoy more support, popularity, and strength; three assets that ought to have a positive impact on group longevity. If they are able to regularly advertise their recruitment messages in multiple forms and do so in the public eye, it may be the case that they exert some sort of current control or strength in the local community. Hamas, for example, with a robust infrastructure of well-established and popular social welfare services in the Palestinian territories, works openly in these institutions to distribute propaganda and recruitment announcements for their terrorist wing, to recruit new members, to raise money, and to organize terrorist activities (Levitt 2004).

However, it could also be the other way around: organizations that use indirect recruitment methods may be the ones that later gain the most visibility, the largest support base, the greatest strength, and ultimately the longest lives. The Islamic State, or ISIS, is the group that first comes to mind here. With its unrivaled, sophisticated propaganda, media, and recruitment campaigns, which use practically every contemporary mode of messaging and indirect recruitment tool to recruit fighters, ISIS has very quickly gained international notoriety and a global support base; both of which have contributed to its strength and success and likely will for additional years (Shane and Hubbard 2014). After exploring each of these possibilities, I find reason to test a third hypothesis:

*H2a: Terrorist groups that use indirect recruitment strategies have a higher longevity than groups that do not utilize indirect methods in their recruitment practices*

I also consider reasons, on the other hand, why incorporating indirect recruitment strategies should presumably act to shorten the amount of time a terrorist organization lasts.

Though indirect recruitment methods may garner a larger pool of interested recruits, and having more members in the group is associated with increased longevity, they may also not be the best for attracting high-quality recruits. If the calls for recruitment are being disseminated widely, and if the terrorists' goal is to receive as many interested people as possible, they may not be as concerned with the recruits' level of experience, education, or skill. It could be that anyone who responds to the message or shows up to be recruited might initially be accepted into the group. However, all of these individuals likely will not be the most dedicated to the organization's cause. Some might simply be seeking a personal adventure, or a new group of friends (Sageman 2004). Ultimately, it may be harder for terrorist groups using indirect recruitment techniques to screen for or gauge recruit quality and commitment. As a result, if more low-caliber recruits end up joining the group, they may jeopardize the group's potential for organizational and operational success. Continual setbacks and a lack of progress due to less competent members are then likely to hasten the speed of the group's decline.

Another possibility is that terrorist organizations that utilize indirect recruitment instruments are lesser-known or less popular groups. Environmental Life Force, which was the first radical environmentalist terrorist group and operated in northern California and Oregon in the late 1970s, planned attacks and recruited for them entirely underground, using only indirect recruitment methods (Miller and Smarick 2013). Though Environmental Life Force was able to commit four attacks in its short life span, its small member base disbanded after only one year of operation in 1978, following the founder's arrest (2013). Terrorist groups may also decide to utilize indirect recruitment instruments when they are losing momentum; in other words, when they are desperate to build a member base and gain more traction in the local community. Distributing recruitment flyers, pamphlets, and recruitment calls through web sites and social

media may be “last resort” activities in an attempt to maintain relevance and support, receive new recruits, or to keep the group from floundering and ultimately breaking up. If this is the case, and the group is struggling to stay alive, then it might be expected to have a relatively shorter longevity than groups using less desperate recruitment measures. Taking these ideas into consideration, I find a fourth and final hypothesis is worth testing:

*H2b: Terrorist groups that use indirect recruitment strategies have a lower longevity than groups that do not utilize indirect methods in their recruitment practices*

With these theoretical frameworks in place and two pairs of competing hypotheses established, I now discuss the data, variables, and methods I use to test them in the forthcoming analysis.

#### **IV. Research Methodology and Data Analysis**

This study employs a series of statistical estimations to test the four hypotheses presented above. All of the data used in the analysis come from the Profiles of Perpetrators of Terrorism in the United States (PPT-US) dataset, which was created by researchers at the National Consortium for the Study of Terrorism and Responses to Terrorism (START) at the University of Maryland. PPT-US provides detailed information across 414 variables on 147 terrorist organizations, domestic or international, identified in the Global Terrorism Database (GTD) as having perpetrated at least one terrorist attack against targets in the United States between the years 1970 and 2011. The GTD is also run by START, and includes information on both

domestic and international incidents of terrorism, again both domestic and international, that have taken place since 1970. The data contained in both datasets were collected using a variety of publicly available source materials, including electronic news archives, existing data sets, secondary materials such as books and journals, as well as legal documents (Miller and Smarick 2013; START;).

As previously stated, PPT-US is currently the only open source dataset that contains and has attempted to code for variables describing terrorist group recruitment strategies. Ultimately, and as is frequently the case with many variables in quantitative terrorism research, collecting data on terrorist group recruitment variables constitutes an extremely difficult challenge; one that is indeed reflected by a considerable amount of missing data in the PPT-US set. Although there are consequently significant data constraints with this analysis, I believe that PPT-US offers the best, most accessible data presently available on terrorist group recruitment, and therefore argue that they are worthy of investigation.

For the purposes of the study, I adopt the definition of terrorism used by both PPT-US and the GTD: “Terrorism is the threatened or actual use of illegal force and violence by a nonstate actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation” (Miller and Smarick 2013). A terrorist group or terrorist organization therefore refers to a collection of individuals belonging to a nonstate entity that uses terrorist tactics to achieve its goals (Jones and Libicki 2008). I use Neumann and Rogers’ (2007) definition of recruitment, “the process through which individuals join entities engaged in [terrorism],” because it describes terrorist group recruitment in the broadest possible terms, eliminating any implication that recruitment is strictly a “top-down” or “bottom-up” process. Under this definition, and under the two types of recruitment analyzed – direct and indirect – recruitment



can occur in a “top-down” or a “bottom-up” fashion. Again, these are strategies terrorist groups use to actively recruit and/or receive new members.

All variables used in the analysis, their definitions, their operationalization, and their sources are summarized in Table 1. The dependent variable of interest is terrorist group longevity, which I define as the duration of a group’s existence and measure in years. To create this variable, I subtract the year of the group’s last known attack as coded in PPT-US from the year coded for the group’s foundation.

**Table 1.** List of variables, definitions, operationalization, and sources

<b>Variable</b>	<b>Definition</b>	<b>Operationalization</b>	<b>Source</b>
Group Longevity	The amount of time a terrorist group lasted or has lasted, in years	The year of the group’s last attack subtracted from the year of the group’s formation	Devised from the Profiles of Perpetrators of Terrorism in the United States (PPT-US)
Indirect Recruitment	Recruitment involving political announcements and exhortations through newspapers, radio, television, and/or the Internet	Dichotomous variable coded “1” if the group used or uses indirect recruitment strategies	PPT-US
Direct Recruitment	Recruitment involving face-to-face interactions	Dichotomous variable coded “1” if the group used or uses direct recruitment strategies	PPT-US
Organization Size	The number of members in the group at its peak size	Categorical variable coded “0” if the group reached 1-100 members; “1” if the group reached 101-1,000 members; “2” if the group	PPT-US

		reached 1,001-10,000 members; and “3” if the group reached 10,001 or more members	
Extreme Right-Wing	Describes groups that adhere to an extreme right-wing ideology <sup>2</sup>	Dichotomous variable coded “1” if the group is extreme right-wing	PPT-US
Donations	An indicator of whether a group acquires financial resources through donations	Dichotomous variable coded “1” if the group receives donations	PPT-US
Hierarchical	Describes groups that have a hierarchical structure <sup>3</sup>	Dichotomous variable coded “1” if the group has a hierarchical structure	PPT-US
Domestic	Describes groups whose headquarters or base of operations is located in the United States	Dichotomous variable coded “1” if the group is a domestic group	Devised from PPT-US

I do not subtract the year of a group’s last attack from its first attack, because most terrorist groups form and are active far before they actually commit their first attack. Though they might not be active in terms of attacking targets, they are surely active “behind-the-scenes,” planning, moving and recruiting members, raising money, gathering weapons and materials, and preparing operations in other ways. The two main independent variables of interest are *Indirect Recruitment* and *Direct Recruitment*. These two variables were originally categorical variables in

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<sup>2</sup> For full applied definition of “extreme right-wing” ideology and dataset inclusion criteria, see p. 26 in the Profiles of Perpetrators of Terrorism in the United States Codebook (Miller and Smarick 2013)

<sup>3</sup> A hierarchical-structured group is one with a well-defined, vertical chain of command, control, and responsibility (Miller and Smarick 2013)

PPT-US, coded “1” for groups that used the strategy (direct or indirect), “0” for groups that did not use the strategy, and “-99” for groups whose recruitment strategy was unknown or disputed in the available data. I truncated them into dichotomous variables, however, converting all “-99” values to missing values. Therefore, *Indirect Recruitment* is coded “1” for groups that use indirect recruitment strategies, and *Direct Recruitment* is coded “1” for groups that use direct recruitment strategies. Terrorist groups in the dataset could be coded as using both indirect and direct recruitment, one or the other, or neither if information on a specific group’s recruitment was not available. In other words, direct recruitment and indirect recruitment are not mutually exclusive concepts or recruitment tactics.

I also analyze five control variables, which were selected from the PPT-US dataset to improve confidence in the quantitative results. They reflect qualities of terrorist groups that I expected might influence group longevity, based on prior literature and personal theorization.

*Organization Size* is a categorical variable depicting approximately how many members were in the group at its peak size, with a “0” value designating 1-100 members; a “1” value designating 101-1,000 members; a “2” value 1,001-10,000 members; and a “3” value 10,001 or more members. Several terrorism scholars, such as Blomberg, Gaibulloev, and Sandler (2011); Gaibulloev and Sandler (2013); and Jones and Libicki (2008) have found that larger terrorist groups have better survival prospects, therefore *Organization Size* is expected to be a positive predictor of group longevity.

*Extreme Right-Wing* is a dichotomous variable coded “1” for extreme right-wing groups, and is included as a measure controlling for group ideology. This variable is expected to be a negative indicator of how long terrorist groups last. This assumption is also rooted in research by various scholars suggesting that right-wing organizations have the shortest durations compared

to groups with other ideologies (Cronin 2006; Blomberg, Gaibulloev, and Sandler 2011). The theoretical argument offered by Martha Crenshaw is that, since right-wing groups often have decentralized organizational structures and trouble articulating concrete goals, they experience frequent difficulty preserving popular support and maintaining generational transition; two important contributors to greater group longevity (United States Institute of Peace 1999).

The variable *Donations* is another dummy variable coded “1” for terrorist organizations who receive donations from outside sources, and operationalizes the role that acquiring and maintaining financial resources plays in driving group longevity. Donations are a common and important source of funds for terrorist groups, which are critical to their internal maintenance; their continued ability to mobilize, attract, and compensate members; and their ability to commit attacks. Therefore, I expect this covariate to positively predict the dependent variable.

The analysis also attempts to control for terrorist group structure, using a dummy variable named *Hierarchical*. This variable is coded “1” for groups that are hierarchical in organizational structure. I theorize that hierarchical groups might experience accelerated dissolution due to the fact that they are typically more susceptible than network- or cell-structured groups, for example, to infiltration by law enforcement agents (Blazak 2001) and leadership decapitation, which can significantly increase the mortality rate of terrorist organizations (Price 2012, Johnston 2012). For these reasons, *Hierarchical* is expected to be a negative predictor of group life span.

Lastly, the dichotomous variable *Domestic* controls for whether the terrorist group is domestic to the United States, meaning that it has a headquarters or base of operations in the U.S. It is coded “1” for groups that are considered to be domestic. I expect this variable to be a negative predictor of a terrorist organization’s longevity, assuming that groups’ ability to commit transnational attacks, rather than just domestic ones, is an indicator of greater overall group

strength and capability; two features that theoretically contribute to increased longevity. This expectation is also based on research by Blomberg, Gaibullov, and Sandler (2011), which suggests that terrorist organizations are relatively shorter-lived in North America than in other regional locations, like the Middle East and North Africa.

The descriptive statistics for each of the variables discussed above are presented in Table 2 and reveal a number of notable features about the data, particularly about the values for the dependent variable.

**Table 2.** Descriptive statistics

<b>Variable</b>	<b>Obs.</b>	<b>Mean</b>	<b>Std Dev.</b>	<b>Min.</b>	<b>Max.</b>
Group Longevity	67	10.656	19.527	0	143
Direct Recruitment	125	.248	.433	0	1
Indirect Recruitment	44	.681	.471	0	1
Organization Size	67	.447	.839	0	3
Extreme Right-Wing	131	.114	.319	0	1
Donations	50	.56	.501	0	1
Hierarchical	59	.525	.503	0	1
Domestic	81	.839	.369	0	1

First, the table shows a widely divergent number of observations across the variables. This is an indication that a large amount of data –the vast majority of the observations – will be lost to listwise deletion in a multivariate analysis. Second, the descriptive statistics for the dependent variable are very suggestive of an uneven distribution of values for group longevity as well as of an outlier on the right-hand side. The values range from zero all the way to 143 years; a quite sizable span. Indeed, looking at the frequency distribution for group longevity reveals that

this maximum value, 143 years, represents a considerable outlier in the data. This value is affecting the mean for group longevity, causing it to be markedly higher than the median, which is 4.4 years. It also causing the standard deviation to be quite high. Further investigation into PPT-US showed that the terrorist organization assigned the value of 143 years for group longevity is the Ku Klux Klan (KKK), the oldest terrorist group in American history. The next-highest value coded for group longevity is 41 years; meanwhile, over a quarter of the groups in the dataset was found to have lasted for only a year or less.

To get a first cut into how using direct and indirect recruitment strategies might affect terrorist group longevity, I compared the average longevity of groups using each strategy, not yet taking into account the KKK outlier or the control variables. The results of this comparison are presented in Table 3, and give a preliminary indication that groups using indirect recruitment strategies might last longer than groups using direct recruitment.

**Table 3.** Comparing average longevity: groups using direct, indirect recruitment strategies

	<b>Average Longevity (Years)</b>
Groups Using Direct	15.5
Groups Using Indirect	18.5

A multiple regression analysis including control variables was the logical next step to take following these initial investigations into the data; therefore, for the principal portion of my analysis, I run five negative binomial regression models using the same variables listed in Table 1. I find negative binomial regression, rather than ordinary least squares, to be the most appropriate and efficient statistical technique to employ in this study for several reasons, given

the nature of the dependent variable, group longevity. First, the variable contains no observations that include negative values. Since longevity is measured in years, zero is the lowest possible value assigned. Second, the values for the dependent variable are unevenly distributed, with 28.36% of the groups, or 19 of the 67 total groups, lasting one year or less, and one group (the KKK) lasting 143 years. Furthermore, these values are skewed toward zero, as 17.91% of the groups, or 12 groups out of 67, lasted for less than one year. Finally, terrorist group longevity is a count variable, and the analysis uses count data. All of these characteristics make negative binomial regression modeling the best method to use in this case (Cameron and Trivedi 2013).

Recognizing that the KKK observation could produce outlier effects and drive the results of the models, I also run two subsequent, complementary analyses to control for its potential impact and to see if the results change without the outlier group. I test the same five models including a dichotomous variable coded “1” for observations in which the KKK was the perpetrating organization, and also test the original models dropping the KKK from the data. Neither of these tests produces different core results from those of the original models<sup>4</sup>.

## ***Results***

The results of the five main regression models are presented in Table 4 and support the third hypothesis of this paper (H2a): terrorist groups that use indirect recruitment strategies are significantly more likely to live longer than groups that do not incorporate indirect recruitment tactics in their recruitment practices. In other words, indirect recruitment methods yield the greatest boost in group longevity relative to other recruitment strategies.

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<sup>4</sup> Results of complementary analyses available in appendix

**Table 4.** The effects of direct and indirect terrorist recruitment on group longevity, negative binomial regression models

	[1]	[2]	[3]	[4]	[5]
Indirect Recruitment		2.513*** (.562)	2.413*** (.564)		2.364* (1.114)
Direct Recruitment	1.068** (.353)		.436 (.398)	.594 (.423)	
Organization Size				.370* (.185)	.325* (.150)
Extreme Right-Wing				.856 (.553)	.676 (.469)
Donations		.		1.308** (.400)	1.354*** (.379)
Hierarchical				-1.00* (.475)	-.654 (.405)
Domestic				-.837 (.546)	-.555 (.439)
Constant	1.678*** (.245)	.405 (.526)	.177 (.562)	1.953** (.687)	-.147 (1.166)
LR Test	8.34**	13.12***	14.24***	26.38***	31.47***
Pseudo R-squared	.022	.053	.057	.118	.165
n	58	33	33	30	24

Negative Binomial Regression Estimations

Standard errors in parentheses

\*\*\*  $p \leq .000$  \*\*  $p \leq .01$  \*  $p \leq .05$

The first two statistical models present the initial relationship between direct recruitment and group longevity and indirect recruitment and group longevity, respectively. Model 1 shows *Direct Recruitment* to be a significant positive predictor of group longevity, and Model 2 shows *Indirect Recruitment* to also be a significant, positive predictor of group longevity. *Direct*



*Recruitment* loses significance, however, when placed in the same model with *Indirect Recruitment* (Model 3) or by itself with the full set of control variables (Model 4).

*Indirect Recruitment* remains a significant, positive predictor of longevity in all of the models in which it is incorporated, including in the final model with all of the control variables (Model 5). These results demonstrate that groups using indirect recruitment are more likely to live longer than groups that do not use indirect strategies, while groups using direct recruitment are no more or less likely to live longer than groups that do not use direct recruitment strategies.

Two of the control variables are consistently significant across Models 4 and 5, in which the full set of controls are added. *Organization Size* and *Donations* are both found to be significant, positive predictors of group longevity in these models, which suggests that larger groups are more likely to live longer and groups that acquire financial resources through donations are also more likely to live longer. This last result regarding donations was the most significant finding, holding the highest significance level ( $p. \leq 000$ ) in the final two models.

Having a hierarchical group structure was a negative, significant predictor of longevity in Model 4, but became a negative, borderline significant predictor in Model 5. This result therefore deserves further exploration, to see if hierarchical groups tend to not last as long as groups with other organizational structures. Contrary to original expectations, *Extreme Right-Wing* ended up being a positive determinant of group longevity. Matching initial expectations, *Domestic* was found to be a negative predictor; however, neither of these indicators was significant in the models.

The pseudo R-squared value in the final model is .165, thus 16.5% of the variation in the dependent variable group longevity is being explained by the included set of independent variables. This value is a low proportion, and undoubtedly reflects substantial data limitations in

this study. It is not an uncommon value for terrorism research, however, given that severe data constraints inherently persist across most terrorism studies. The very limited number of observations across all five models can also be attributed to missing data in PPT-US. As expected, the number of observations decreased further once the full set of control variables was added in Models 4 and 5, ending in just 24 observations for Model 5, in which indirect recruitment is a significant, positive predictor of group longevity. This finding, as well as the rest of the regression results, therefore, must be interpreted taking these constraints into account.

After examining all of the results of the models, I also decided to further examine the relationship between organization size and recruitment strategy in predicting how long a group lasts, speculating that the interaction of those independent variables might be the factor driving increased group longevity. I created two interaction terms, (*Organization Size • Direct Recruitment*) and (*Organization Size • Indirect Recruitment*) and tested them in another set of negative binomial regression models together with the original variables. The first term, the interaction between organization size and direct recruitment, was not significant. The second term, the interaction between organization size and indirect recruitment, was dropped from the model due to colinearity, which suggests that both organization size and using indirect recruitment strategies are very closely correlated features of groups that have a high longevity.

On the basis of this result, I infer that likely all of the groups in the dataset using indirect recruitment are also large in size. Longer-lasting terrorist groups, in other words, tend to both use indirect recruitment strategies and have a large number of members. This is certainly a reasonable possibility. Larger groups likely have more resources with which to make and distribute indirect recruitment materials, which in turn allow them to cast a wider recruitment

net. Larger groups might also be more likely to have a strong Internet presence, which they can use to recruit additional members.

Finally, upon discovery that using indirect recruitment tactics is a significant, positive determinant of group longevity, I conducted several marginal effects simulations containing the full set of control features to find out the substantive impact of this result. I find that the average terrorist group that uses indirect recruitment strategies, holding constant the covariates, lasts about 12.2 years. The average terrorist group that does not employ indirect recruitment strategies, meaning that it uses some other strategy or strategies besides indirect ones, lasts about 1.1 years. Using indirect recruitment tactics, therefore, is expected to boost a group's longevity by a fairly striking amount: 1,070%, or approximately 11.05 years

## **V. Conclusion**

This study has sought to answer why some terrorist groups live longer than others by investigating both how terrorist organizations' use of different recruitment strategies affect group life span, as well as some of the possible reasons why they might or might not do so. It represents a first attempt at devising theoretical stories linking these two variables, as well as a first cut at a quantitative examination of terrorist recruitment tactics. As such, several limitations, the majority of which pertain to the lack of available data on specific organizations' recruitment methods and data source reliability, constrain the analysis and the application of its results. Future research might attempt to fill in some of the holes in PPT-US, especially in the recruitment strategy variables, and to extend the data to include more groups – not just those that have committed attacks against the U.S. Since PPT-US is the only dataset with coded

information on these kinds of variables, and future studies on terrorist recruitment could certainly benefit from additional quantitative recruitment data, researchers should also highly consider updating it annually. A valuable next step in the literature might then be to empirically investigate the relationship between group recruitment tactics and other variables, such as group lethality or attack type.

The issue of endogeneity remains a concern in this analysis, as it often does in terrorism studies. My findings show, for example, that terrorist groups that use indirect recruitment methods are more likely to live longer than groups that employ other strategies. However, causality could work the other way: older groups might be more likely to use indirect recruitment strategies over other recruitment techniques, or perhaps over younger groups. While group size improves survival, longevity may also allow a terrorist organization to recruit new members and grow. Similarly, groups may be more likely to receive donations the older they are, possibly because of greater popularity or support. Descriptive qualitative or case study research could address these concerns, as well as enhance confidence in the results of this quantitative examination.

These findings may suggest to policymakers, security analysts, and counterterrorism officials that recruitment strategies, particularly indirect ones, matter for terrorist group longevity and success. Though pivotal efforts have certainly been made, an even greater emphasis might be placed on moving beyond attack and threat response to defeating terrorist organizations proactively through counterrecruitment measures. Hindering groups' ability to recruit new manpower for carrying out attacks and sustaining operations strikes a blow at their ability to function, to gain strength, and ultimately to survive. Therefore, with clearer research on which recruitment strategies best allow groups to thrive in this manner, global security officials will be

in a better position to develop informed, targeted interventions to cripple groups' recruitment practices and survival prospects.

Finally, the results of this study come at a critical time in the history of terrorism and specifically terrorist recruitment. A new movement against the political order in the Arab world and a global terrorist threat has emerged with the rise of the Islamic State (ISIS), which has grown to dominate the attention and concern of the international community for a number of reasons. Much of that concern, however, arises from ISIS's unprecedented demonstrated ability to attract new fighters, especially foreign fighters, to its cause; a global following it achieves through its sophisticated – and again unprecedented – use of contemporary multi and social media platforms in multiple languages to carefully tailor its recruiting pitch to Muslims around the world.

Not only have these indirect recruitment methods worked for ISIS; the group might be changing the understanding of “direct recruitment” and “indirect recruitment” in the development of the New Media age. Does messaging precise instructions to would-be recruits in online chat rooms on how to join the Islamic State, travel to Syria without detection, pack for the trip, and train for operations, for instance, still constitute an “indirect” recruitment strategy? Though the contact may not be physical in this case, extremely direct communication – and recruitment – is arguably taking place over the Internet. Perhaps ISIS is setting the trend, and future terrorist groups will move further away from physical recruitment and more toward “virtual” recruitment, using the Internet as a “virtual training camp” (Stenersen 2008). In any case, ISIS's recruitment tactics certainly indicate that the line may be becoming blurred between the two strategies highlighted in this paper, and that the nature of terrorist group recruitment and survival is evolving with the times.

## Appendix

### *Main models, with KKK dummy variable*

The effects of direct and indirect terrorist recruitment on group longevity, negative binomial regression models with KKK dummy variable

	[1]	[2]	[3]	[4]	[5]
Indirect Recruitment		2.214*** (.489)	2.197*** (.491)		2.449* (1.054)
Direct Recruitment	.691* (.327)		.096 (.327)	.409 (.384)	
Organization Size				.184 (.172)	.099 (.114)
Extreme Right-Wing				.480 (.468)	.359 (.325)
Donations				1.157** (.359)	1.159*** (.279)
Hierarchical				-1.075* (.425)	-.853** (.288)
Domestic				-1.201* (.500)	-.990** (.316)
KKK Dummy	2.593** (1.201)	2.343 (.802)	2.314** (.807)	2.003* (.874)	2.035*** (.503)
Constant	1.678*** (.224)	.405 (.461)	.354 (.492)	2.635*** (.671)	.503 (1.088)
LR Test	17.97**	26.84***	26.93***	31.89***	44.19***
Pseudo R-squared	.047	.109	.109	.142	.231
n	58	33	33	30	24

Negative Binomial Regression Estimations

Standard errors in parentheses

\*\*\*  $p \leq .000$  \*\*  $p \leq .01$  \*  $p \leq .05$

***Main models, excluding the KKK***

The effects of direct and indirect terrorist recruitment on group longevity, negative binomial regression models excluding the KKK

	[1]	[2]	[3]	[4]	[5]
Indirect Recruitment		2.214*** (.495)	2.197*** (.498)		2.450* (1.061)
Direct Recruitment	.691** (.331)		.096 (.334)	.411 (.394)	
Organization Size				.184 (.177)	.098 (.120)
Extreme Right-Wing				.476 (.480)	.348 (.339)
Donations				1.156** (.367)	1.159*** (.291)
Hierarchical				-1.076* (.436)	-.855** (.301)
Domestic				-1.200* (.515)	-.989** (.332)
Constant	1.678*** (.227)	.405 (.466)	.354 (.498)	2.635*** (.691)	.505 (1.098)
LR Test	4.19*	14.56***	14.65***	20.58**	31.79***
Pseudo R-squared	.011	.065	.065	.102	.188
n	57	32	32	29	23

Negative Binomial Regression Estimations

Standard errors in parentheses

\*\*\*  $p \leq .000$  \*\*  $p \leq .01$  \*  $p \leq .05$

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Young, Joseph K., and Laura Dugan. 2010. "Why do Terrorist Groups Endure?" New Orleans: Paper presented at the annual meeting of the International Studies Association.

## ACADEMIC VITA of JULIA WARSHAFSKY

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### **Education**

Bachelor of Arts in Political Science, Spring 2015, The Pennsylvania State University  
Bachelor of Arts in Spanish, Spring 2015, The Pennsylvania State University  
The Paterno Liberal Arts Undergraduate Fellows Program  
Honors in Political Science

Thesis Title: Recruiting for the Long Term: Exploring the Effects of Terrorist Recruitment Strategies on Group Longevity

Thesis Supervisor: James Piazza

The Institute for the International Education of Students (IES Abroad)  
Granada, Spain; January-May 2014

### **Association Memberships/Activities**

Assistant Music Director, Blue in the FACE a cappella group  
Member, Penn State Global Ambassadors  
Student Ambassador, IES Abroad  
Liberal Arts Alumni Mentor Program  
Mentoring with Honors, Schreyer Honors College  
Phi Beta Kappa Society

### **Awards and Honors**

Department of Political Science Student Marshal, 2014-2015 Academic Year  
Pi Sigma Alpha's "Best Thesis of 2015" Award, Spring 2015  
Honorable Mention for the Information Literacy Award, Undergraduate Exhibition; Spring 2015  
Kim Anderson Scholarship in Political Science; 2013-2014, 2014-2015 Academic Years  
Schreyer Ambassador Travel Grant, Summer Internship Grant; Spring and Summer 2014

### **Related Experience**

Center for Strategic and International Studies (CSIS), Washington D.C.  
Intern to General James (Ret.) Cartwright, Harold Brown Chair in Defense Policy Studies  
June-August 2014

National Consortium for the Study of Terrorism and Responses to Terrorism (START), College Park MD  
Intern, Global Terrorism Database (GTD), Weapons and Tactics  
May 2013-January 2014

Strategic Intelligence Research Internship, University Park PA  
Research Intern  
September-December 2013