

NATIONAL CONSORTIUM FOR THE STUDY OF TERRORISM AND RESPONSES TO TERRORISM

START ▶▶ **2009 RESEARCH REVIEW**

About START

The National Consortium for the Study of Terrorism and Responses to Terrorism, known as START, opened its doors in January 2005. Its mission: to use state-of-the-art theories, methods and data from the social and behavioral sciences to better understand the origins, dynamics and social and psychological impacts of terrorism.

Funded by an initial \$12 million Center of Excellence grant from the U.S. Department of Homeland Security's (DHS) Science & Technology Directorate, START is aligned with the directorate's Human Factors/Behavioral Sciences Division. START also receives support from units within DHS, including the Federal Emergency Management Agency and the Transportation Security Administration, and from other federal sources, such as the National Science Foundation, the National Institute of Justice and the Department of Defense.

START's research is intended to benefit homeland security professionals at the federal, state and local levels. It offers insights into important policy issues, including how to disrupt terrorist networks, reduce the incidence of terrorism and enhance the resilience of society in the face of terrorist threats. START's major research areas are terrorism group formation and recruitment, terrorist group persistence and dynamics and the societal impact of terrorism. These three focus areas are based on the developmental cycle of groups employing terrorism, which traces its origins (radicalization), life span (operations and interventions) and impact (community resilience). START also does work that cuts across all three of its major research areas, with projects such as the Global Terrorism Database, an open-source database on terrorist events around the world since 1970.

To accomplish its mission, START brings together a multi-institutional, multidisciplinary team of experts, including criminologists, political scientists, sociologists, psychologists, geographers, economists, historians and public health experts. With administrative offices at the University of Maryland, START works in collaboration with nearly 50 affiliate institutions from around the world.

In addition, START is dedicated to training and mentoring a new generation of scholars and analysts capable of examining questions about the behavior of terrorists and terrorist groups and how societies can best prepare for dealing with terrorist threats or responding to terrorist attacks.

START supports the homeland security policy community by generating scientifically validated findings that inform operations and policies involving terrorism prevention, threat detection, counterterrorism, preparedness and response, community recovery and risk communication. In 2009, START received a Certificate of Recognition from the DHS Science and Technology Directorate, Office of University Programs, recognizing its outstanding contributions to the security of the nation by developing the Global Terrorism Database.

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START offers insights into important policy issues, including how to disrupt terrorist networks, reduce the incidence of terrorism and enhance the resilience of society in the face of terrorist threats.

Letter from the Director

WELCOME TO THE FIRST EDITION OF THE START RESEARCH REVIEW, and thank you for your interest in the work of the National Consortium for the Study of Terrorism and Responses to Terrorism (START).

The underlying philosophy of START is that understanding a complex, global phenomenon such as terrorism requires the best and the brightest from disciplines across the behavioral and social sciences. Moreover, we assume that no single university or research institute has a monopoly on all of the best methods and knowledge. Accordingly, START has assembled a multi-institutional, multidisciplinary team with researchers at approximately 50 universities and research institutes around the world. Using state-of-the-art methods, from experimental data to field surveys, from sophisticated quantitative analyses to case studies, START is contributing to a deeper understanding of the sources of terrorism and the best ways for societies to counteract and mitigate terrorism's effects. As a U.S. Department of Homeland Security Center of Excellence, START bridges the academic, government and private research sectors and endeavors to constantly improve the quality of the analysis it produces.

University scientists traditionally have published the results of their research in technical reports and professional journals, which are not widely circulated among policymakers and non-academics. Our research team has been seeking ways to share its important findings in less traditional ways. This first edition of the *Research Review* series focuses on short, highly visual summaries that highlight some of our major research discoveries from the past year. For example, did you know that the vast majority of attacks by foreign anti-American terrorist groups are carried out in the host country of the terrorist group rather than against the U.S. homeland? Or that Americans are much more likely to prepare for natural hazards like earthquakes and tornadoes than for terrorism?

The idea behind the *START Research Review* is to give readers an overview of projects that we have found especially interesting and that have findings relevant to non-academics. Of course, for those with more specialized or technical interests, we also provide information on how to obtain complete scientific reports for each of the studies reviewed here. Please visit our Web site (www.start.umd.edu) to find much more detailed information about research, education and outreach opportunities.

Thank you again for your interest in START. I hope that this overview of our work will encourage you to examine more fully our research and to consider how these findings affect efforts to counter terrorism.

Sincerely,
Gary LaFree, Director

SINCE IT BEGAN OPERATIONS IN 2005, START has supported more than 60 research projects designed to expand our knowledge of the social and behavioral aspects of terrorism. Roughly half of these were initiated in 2005, and half at the beginning of START's second research cycle in 2008. As would be expected, the earlier set of research projects is the most mature, so it is the results of a selection of these projects that we showcase in the 2009 *Research Review*, START's first such publication.

We begin exploring START's research by highlighting nine of its research projects in what we hope readers will find to be accessible visualizations of often complex topics and methodologies. We selected from among START's projects those that have already yielded concrete and policy-relevant findings, lent themselves well to visual representation and represented a diversity of START's research themes.

The presentation of these projects departs from the standard academic format; indeed, this reflects the primary purpose of the *Review*—to make START's research accessible and interesting to an audience beyond traditional academia. The journey towards the creation of the *Review* covered unfamiliar (but always interesting) ground, yet we have come to believe that this practice is a valuable one for encouraging the incorporation of scientific research findings into real-world problem solving and decision making. At the same time, we realize that in order for the results of START's research to be taken seriously, the science behind them must be transparent. Therefore, we provide hyperlinks for each of the projects described in the review, which will take readers either directly to more comprehensive descriptions of the research involved, or to a project page to which additional resources related to the project will be added as they become available.

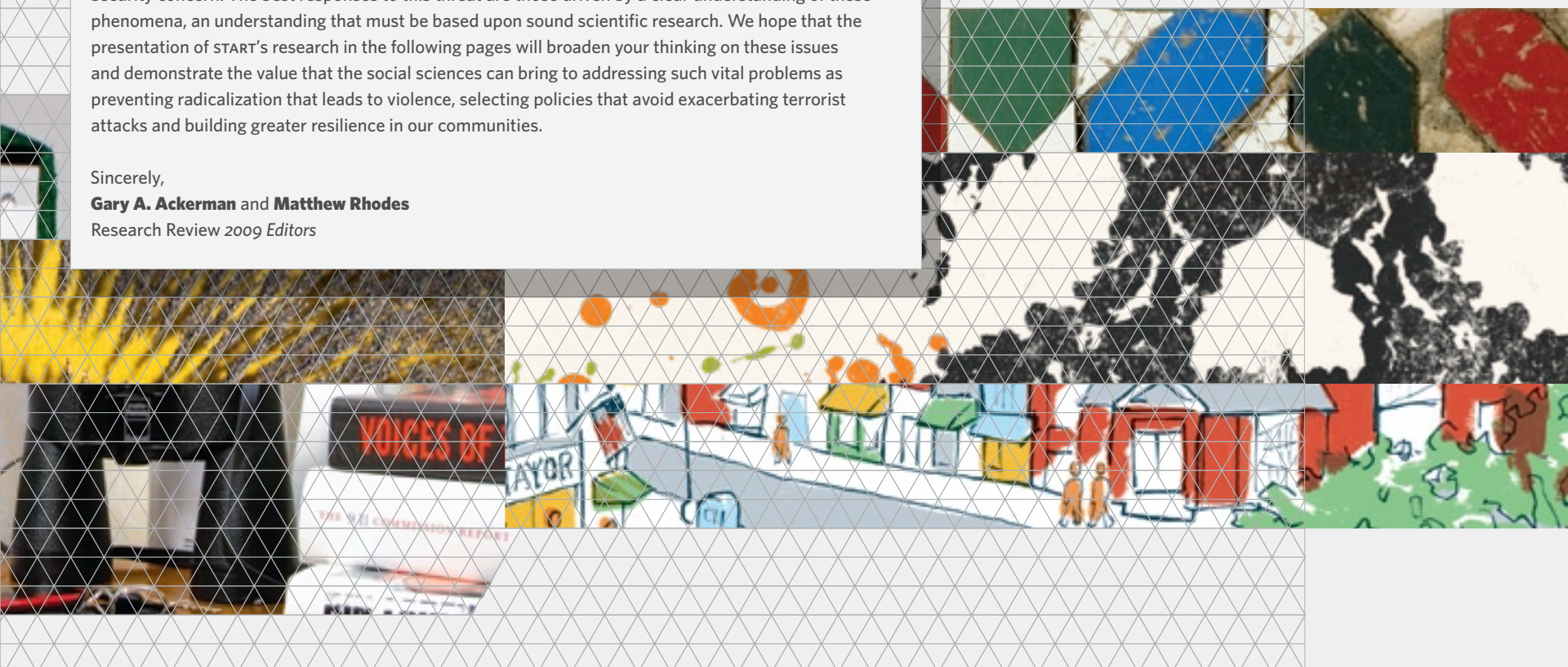
Following the highlighted projects, we provide brief introductions—including summary findings where available—of each of the other research projects launched in 2005. We encourage readers to explore more closely those projects that spur their interest through the links provided or by contacting START directly. We also suggest visiting the START Web site at www.start.umd.edu, which contains a far more extensive collection of research, policy and education resources than can be described here.

Terrorism and its various causes, processes and effects on society are likely to remain a prominent security concern. The best responses to this threat are those driven by a clear understanding of these phenomena, an understanding that must be based upon sound scientific research. We hope that the presentation of START's research in the following pages will broaden your thinking on these issues and demonstrate the value that the social sciences can bring to addressing such vital problems as preventing radicalization that leads to violence, selecting policies that avoid exacerbating terrorist attacks and building greater resilience in our communities.

Sincerely,

Gary A. Ackerman and Matthew Rhodes

Research Review 2009 Editors



Hearts and Minds

Surveys in Muslim-majority Countries Explore Opinions about Anti-U.S. Terrorism

STEVEN KULL, STEPHEN WEBER & CLARK MCCAULEY

Jihadist terrorist groups like al-Qa'ida cannot survive without a base of sympathizers and supporters. Levels of sympathy and support vary, ranging from merely sharing grievances with the terrorist group to providing logistical assistance or recruits. START researchers have set out to study the mobilization of support for and against terrorism through some of the most extensive surveys yet conducted in Muslim-majority countries in order to understand the drivers and moderators of mobilization for and against terrorism.

METHODOLOGY START formulated more than 100 survey questions that addressed research hypotheses in criminology, psychology, political science and media studies. The questions covered topics such as support for or rejection of attacks on American civilians, opposition to the U.S. military presence in Muslim countries, attacks on U.S. troops based in Muslim countries, perception of the United States' goals in relation to the Muslim-majority countries, general views of the United States, views of al-Qa'ida and of other groups that attack Americans and views concerning the governments of Saudi Arabia, Jordan, Egypt and Pakistan.

The surveys were conducted in two waves in order to assess changes in attitudes and behavior over time. The first wave of surveys was conducted between Dec. 9, 2006, and Feb. 9, 2007, in Morocco, Egypt, Pakistan and Indonesia. The second wave was conducted between July 28, 2008, and Sept. 6, 2008, in Egypt, Pakistan and Indonesia. All surveys were conducted using face-to-face, in-home interviews in indigenous languages, based upon multistage probability samples of more than 1,000 respondents in each country in each wave of surveys. Preparations included back-translation and conducting focus groups in Morocco, Egypt, Pakistan and Indonesia over the first and second waves.

RESULTS The surveys yielded a host of findings relevant to assessing mobilization for or against terrorism in several Muslim-majority countries. Here, we present just a selection. Several charts of survey results are overlaid on the illustration of a volcano, which represents increasing levels of radicalized beliefs and behaviors. Charts are positioned relative to the degree of mobilization reflected by the question posed, from a base of shared grievance to the violent summit indicating actual participation in terrorist activities.

The majority of respondents in all countries have highly negative perceptions of U.S. goals, believing that these include spreading Christianity, maintaining control over oil and weakening and dividing Islam. When it comes to the goals of radicals, the majority of respondents agreed with several expressed al-Qa'ida goals, including getting the United States to withdraw forces from Islamic countries, getting the United States to stop supporting the governments of Egypt, Saudi Arabia and Jordan, imposing strict Shari'a law in every Islamic country and keeping Western values out of Islamic countries. Although large majorities opposed attacks on U.S. civilians, whether in the United States or in Islamic countries, those who voiced approval for such attacks represented tens of thousands of people in each country surveyed.

In both waves of surveys, only low percentages of respondents would consider contributing money to an organization that may send some of its funds to a group that attacks Americans, or would approve if a member of their family were to join such a group. Survey results showed ambivalence in regard to how respondents felt about Osama bin Laden and al-Qa'ida itself, possibly because many respondents approved of al-Qa'ida goals but did not condone killing civilians.

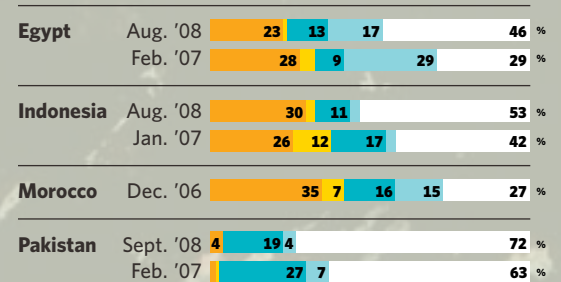
For more information on this project, please visit: www.start.umd.edu/RR09/proj1.

IDENTITY OF 9/11 PERPETRATORS

Who do you think was behind the 9/11 attacks?

[open-ended response]

■ AL-QA'IDA ■ OTHER ■ U.S. GOV'T ■ ISRAEL ■ DON'T KNOW

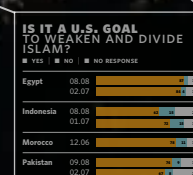
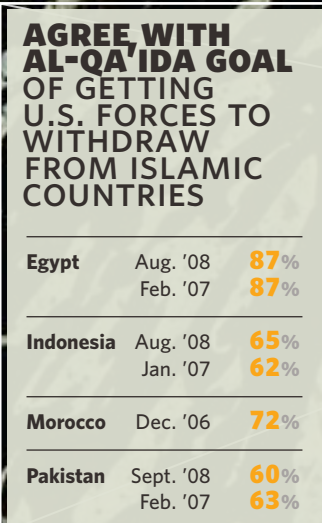
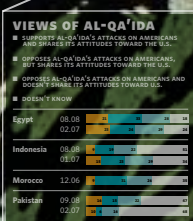
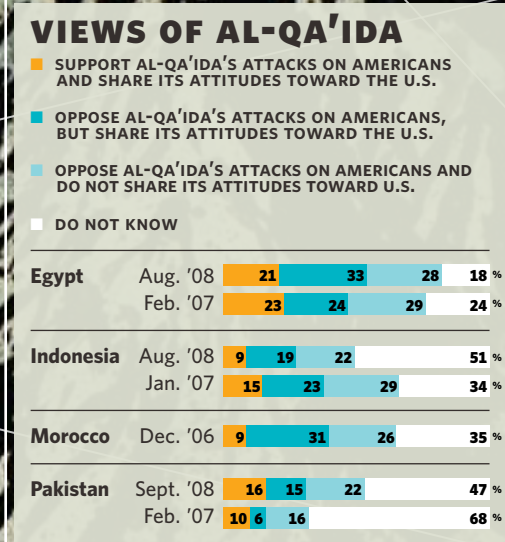
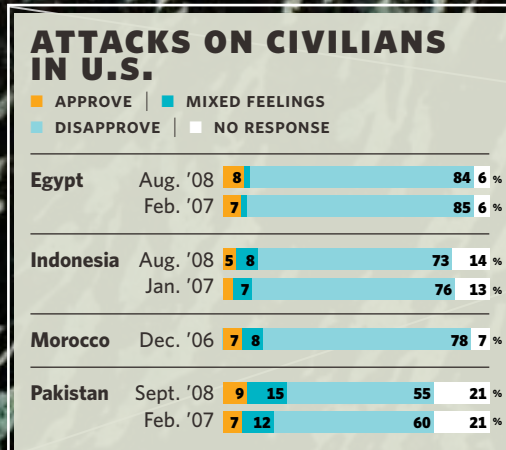
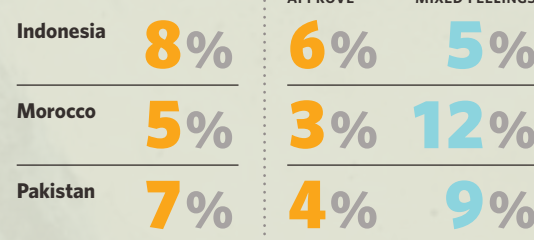


ACTIVE SUPPORT FOR GROUPS THAT ATTACK AMERICANS

2007 SURVEY

Would you consider contributing money to an organization that may send some of its funds to a group that attacks Americans?

Would you approve or have mixed feelings if a member of your family were to join such a group?



Underlying Motivations

The Roles of Uncertainty, Failure and Collectivism in Support for Violent Extremism

ARIE KRUGLANSKI



Ideology is a core component of terrorism, since it identifies a cause common to one's group, aids in recruitment and justifies the use of violence. While several factors influence the appeal of an ideology (including the cogency of its arguments and the credibility of the source of the ideology), there are also motivational and psychological bases for its acceptance. Many of those may be linked to an orientation towards collectivism rather than individualism—that is, whether a person views him/herself primarily as part of a collective with norms and responsibilities shaped by his/her community (collectivistic) or is motivated primarily by personal preferences and needs (individualistic). Previous studies have found that people who lean towards collectivism are more likely to denigrate outsiders and act tough against perceived enemies of their group. START researchers sought to investigate which factors might lead to a collectivist orientation and whether collectivism correlates with support for ideologies that advocate terrorism.

METHODOLOGY Past research has demonstrated a positive relationship between an individual's need for closure (or need for certainty) and characteristics of collectivism. Three preliminary studies (two using university students and a third involving elderly Dutch respondents) support the following conclusion: In general, someone with a higher need for closure is more likely to seek "in-group" identification, support tough counterterrorism policies and prefer a rigid leader over an open-minded one. Using data from the START International Survey (see p. 4), researchers assessed the need for closure among 3,047 respondents in Egypt, Pakistan and Indonesia, as well as their orientations toward collectivistic goals, including levels of association with religion and nation.

Researchers also looked for the presence of a "collectivistic switch." Experimental evidence had indicated that both recall of and external feedback about past failures were associated with

a shift toward collectivism over individualism. To investigate this in the context of Islamic extremism, the International Survey asked respondents about the extent to which they have succeeded on their personal goals and whether parents' major goal should be to ensure that their children contribute to their nation and their religion (indicating a collectivistic orientation), or to help them attain personal success (consistent with an individualistic orientation).

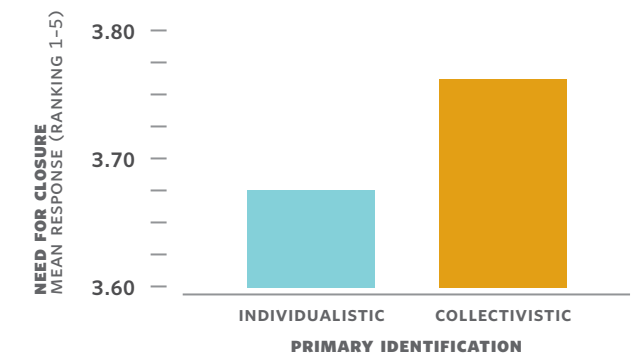
Last, researchers tested the link between collectivism and support for violence in both an Internet survey of 1,800 respondents from 14 Muslim-majority nations, and in the face-to-face International Surveys in Pakistan, Indonesia and Egypt (with a total number of 2,673 respondents). The survey asked respondents whether they primarily identified as an individual or as members of their nation or religion and assessed their support for attacks against the U.S. military and U.S. civilians.

RESULTS The three charts (right) show the average results for each component discussed above. All analyses consist of Muslim respondents only.

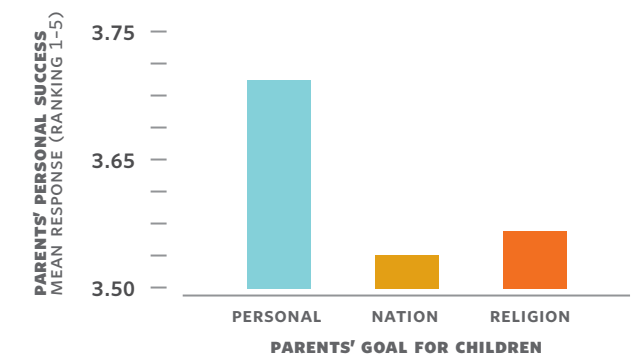
BOTTOM LINE The research indicates that in at least several Muslim-majority countries, a high need for closure (that is, low tolerance for uncertainty) is linked to collectivistic goals, and those with lower levels of perceived success emphasize collectivistic goals for their children, supporting the idea that personal failure may trigger a switch from individualistic to collectivistic goals. Collectivistic goals are in turn linked to higher levels of support for attacks against both Western military and civilian targets. These findings are important both for identifying those most at risk for supporting or engaging in terrorism, as well as suggesting focal points for countering support for terrorism in the Islamic world.

For more information on this project, please visit: www.start.umd.edu/RR09/proj2.

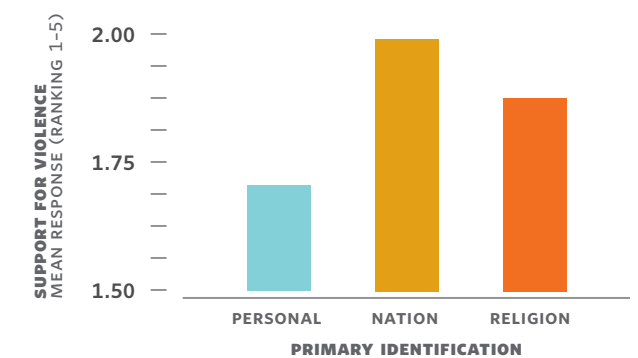
RELATION BETWEEN NEED FOR CLOSURE AND INDIVIDUALISTIC VERSUS COLLECTIVISTIC GOALS (N=3,047)



PARENTS' MAJOR GOAL TO ENSURE THEIR CHILDREN CONTRIBUTE TO THEIR PERSONAL SUCCESS, SERVE NATION OR SERVE RELIGION (N=2,845)



LINK BETWEEN COLLECTIVISM AND SUPPORT FOR VIOLENCE AGAINST U.S. CIVILIANS AND TROOPS (N=2,673)



Mosaic of Minority Violence

Ethno-political Mobilization in the Middle East

JONATHAN WILKENFELD, AMY PATE & VICTOR ASAL

AN ORGANIZATION IS LESS LIKELY TO ENGAGE IN VIOLENCE IF IT:

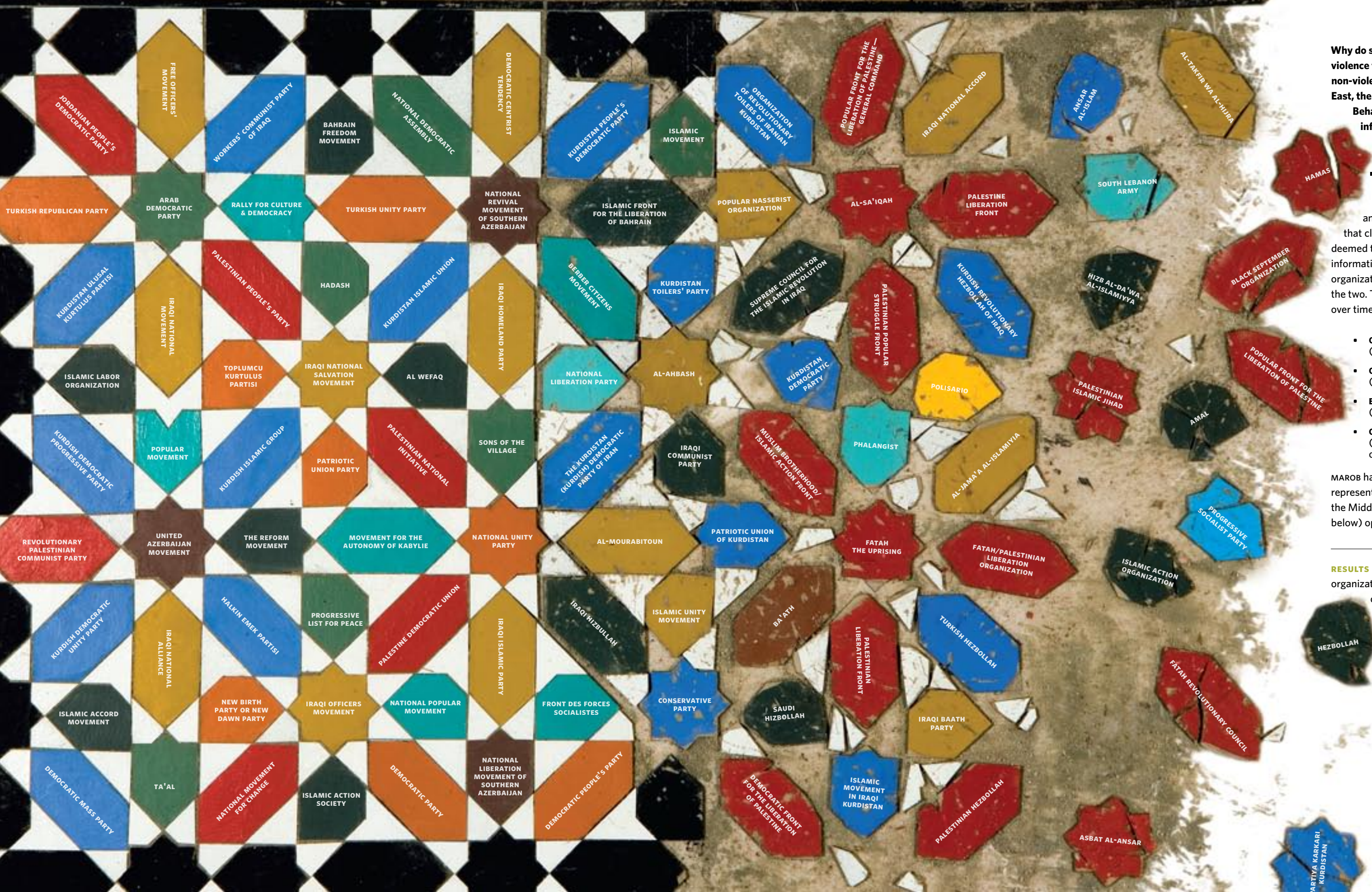
- > has a democratic ideology
- > engages in electoral politics

AN ORGANIZATION IS MORE LIKELY TO ENGAGE IN VIOLENCE IF IT:

- > faces more state repression
- > engages in smuggling
- > uses violent rhetoric
- > controls territory

AN ORGANIZATION IS MORE LIKELY TO TARGET CIVILIANS IF IT:

- > rhetorically justifies such attacks
- > seeks ethnic self-determination
- > receives support from a foreign state
- > has been denied access to negotiations with the state



Why do some ethnic organizations choose violence to pursue goals while others remain non-violent? Focusing initially on the Middle East, the Minorities at Risk Organizational Behavior (MAROB) project provides information on the characteristics and behaviors of ethnic organizations.

METHODOLOGY MAROB is a data-driven analytical effort focused on organizations that claim to represent ethnic groups deemed to be minorities at risk. MAROB gathers information on both violent and non-violent organizations, allowing for comparisons between the two. The project collects data on 150 variables over time, in the following general categories:

- **ORGANIZATIONAL CHARACTERISTICS** (e.g., ideology, leadership, grievances)
- **ORGANIZATION-STATE RELATIONS** (e.g., repression, negotiations)
- **EXTERNAL SUPPORT** (e.g., foreign state, diaspora)
- **ORGANIZATIONAL BEHAVIOR** (e.g., types, targets and location of violence)

MAROB has identified 104 organizations representing the interests of 12 ethnic groups in the Middle East and North Africa (listed in the key below) operating between 1980 and 2004.

RESULTS The tile mosaic at left illustrates where organizations fall along the protest-violence continuum, with organizations displaying greater levels of violence farther to the right. Across the top of the mosaic are

listed organizational characteristics that correlate significantly with either a greater or lesser predilection for violence and terrorism. The color of each tile represents the broader ethnic group which the organization represents.

Fifty of these organizations have used no violence in pursuing their goals; 16 organizations have attacked only armed opponents (such as security forces or rival militias); and 38 organizations have attacked civilians at least once during this period. While the overall number of organizations has increased, a smaller percentage of these organizations uses violence now as compared to past periods, while a larger proportion engages in electoral politics or protests. It should be noted that these data, which terminate in 2004, do not fully capture developments in Iraq since the U.S. invasion.

BOTTOM LINE Organizations espousing democratic goals and participating in electoral politics are less likely to engage in violence. Organizations that face violent and repressive governments, that advocate violence, and/or that receive support from external actors are more likely to use violence. The sharp increase in the number of organizations in the Middle East pursuing electoral politics, which is probably a result of political liberalization in some countries, is thus a promising sign. Future MAROB data collection will extend to other regions, including Europe, South Asia and Latin America. An update of the Middle East and North Africa through 2007 is also under way.

For more information on this project, please visit: www.start.umd.edu/rro9/proj3.

KEY		
■ Alawi	■ Kurds	■ Shi'is
■ Arabs	■ Maronite Christians	■ Sunnis
■ Azerbaijanis	■ Palestinians	■ Turkish Cypriots
■ Berbers	■ Saharawis	
■ Druze		

WANTED

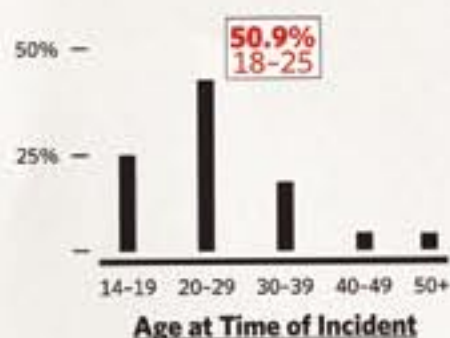
HOMICIDE, CONSPIRACY TO COMMIT HOMICIDE, ACCOMPLICE TO HOMICIDE

ALIASES Anti-Federal Government, White Supremacist, Neo-Nazi, Militia, Skinhead, Survivalist, Anti-Semite

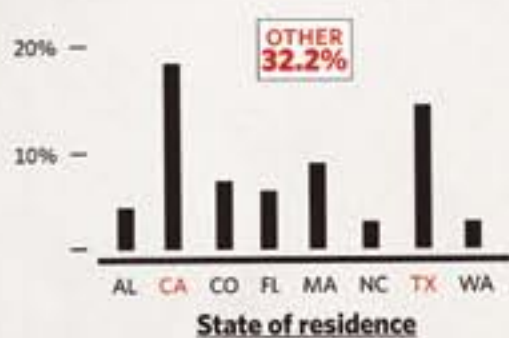
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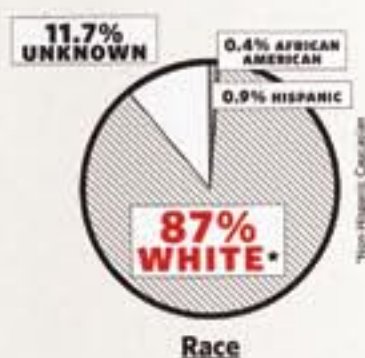
Gender



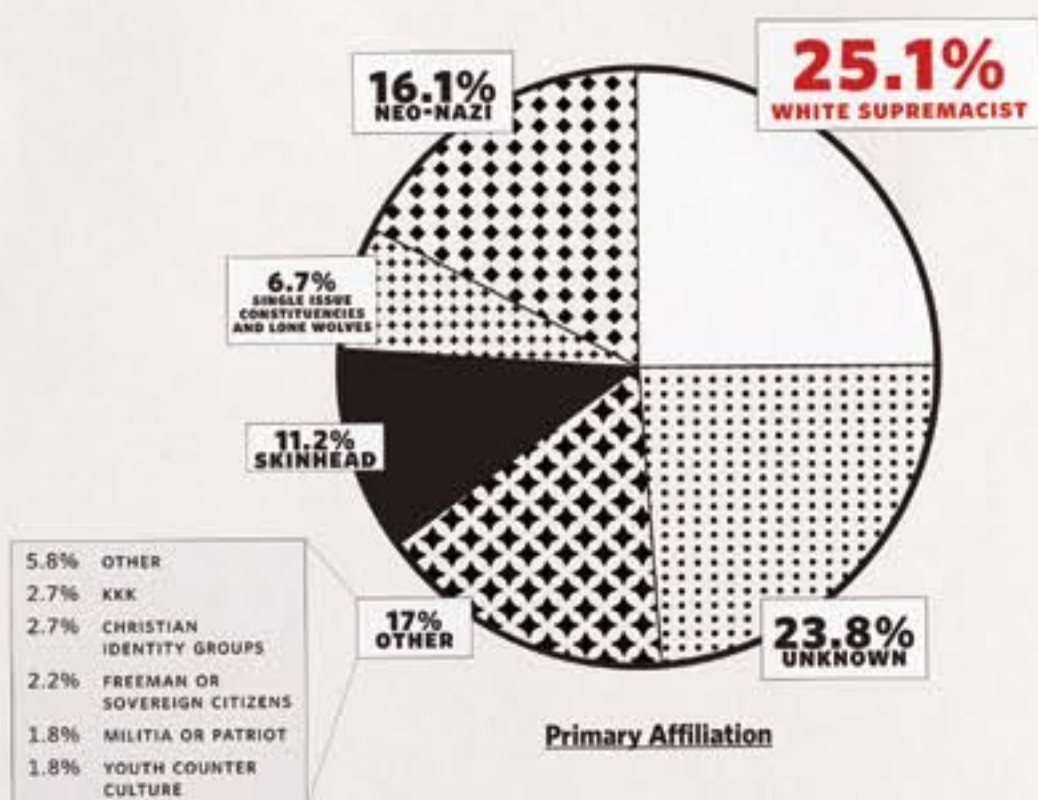
Age at Time of Incident



State of residence



Race



Primary Affiliation

Prior Arrests

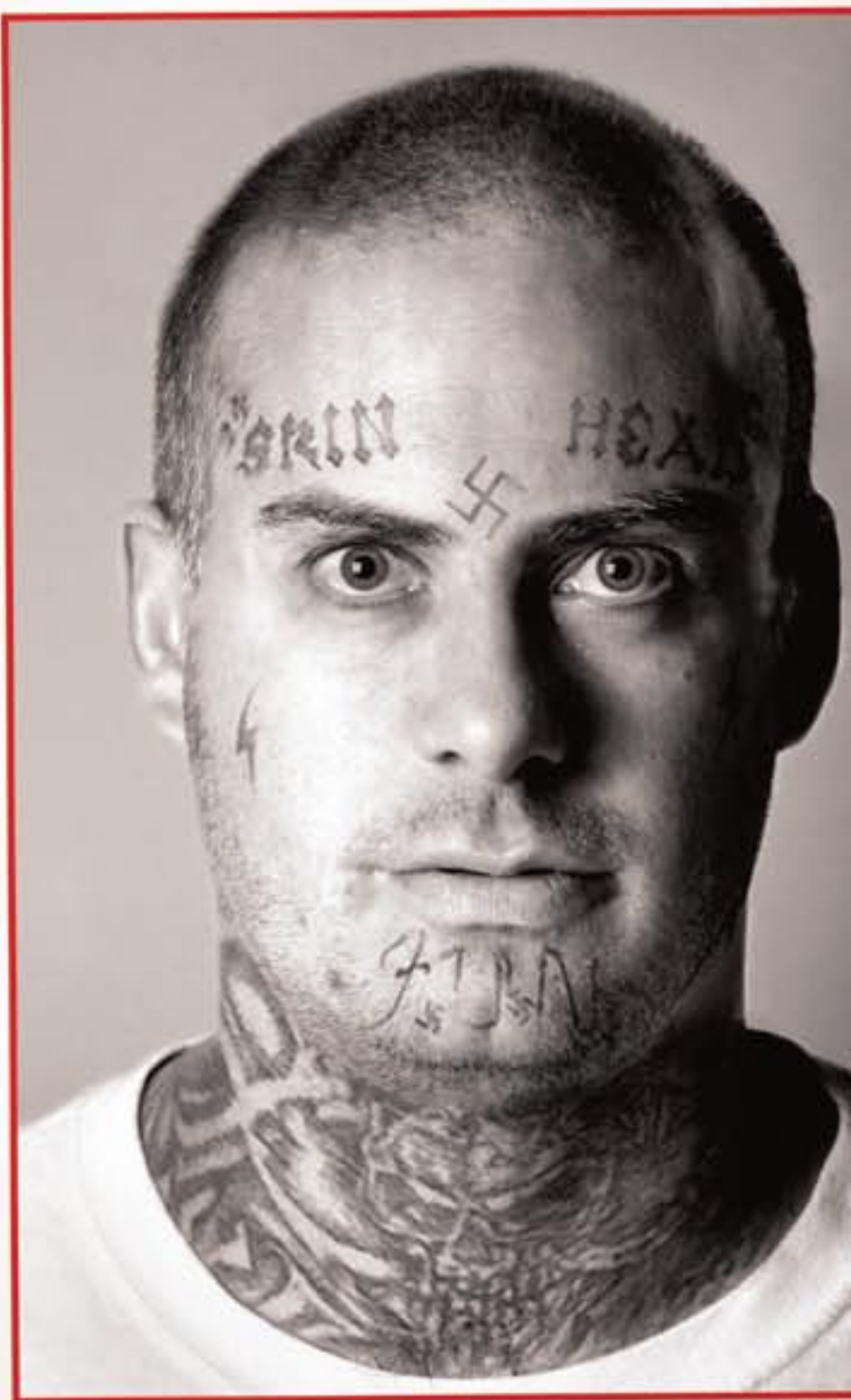
31.8%
OF SUSPECTS

Group Membership

26.0%	FORMAL
23.3%	ACTING WITH OTHERS, NO CLEAR BOUNDARIES
19.3%	UNKNOWN
15.7%	INFORMAL
15.7%	ACTED ALONE

Occupation (if known)

35.9%	UNEMPLOYED
23.1%	BLUE-COLLAR
15.4%	STUDENT
14.0%	OTHER
7.7%	SELF-EMPLOYED
3.8%	GOVERNMENT



CAUTION CONSIDERED ARMED AND DANGEROUS

20% of suspects resist arrest and 30% of suspects will be in possession of a weapon at the time of arrest. Of the weapons found at arrest, 45% were illegal guns, 33% were legal guns, 13.3% were knives or shanks and 9% were other weapons.

REMARKS

75.9%	BELIEVE THAT WHITES ARE RACIALLY SUPERIOR TO ALL OTHER RACES
19.7%	HAD RIGHT-WING MOVEMENT MATERIALS PRESENT AT TIME OF ARREST
3.7%	ARE MEMBERS OF AN UNRECOGNIZED OR FABRICATED NATION
3.7%	BELIEVE IN VARIOUS CONSPIRACY THEORIES
2.8%	BELIEVE WE ARE IN OR NEAR THE APOCALYPSE
1.9%	EXPRESS A WILLINGNESS TO DIE FOR FREEDOM

N=223 U.S. FAR-RIGHTISTS SUSPECTED OF INVOLVEMENT IN HOMICIDE

Criminal Violence and Terrorism

Developing a Portrait of U.S. Far-Right Extremists' Involvement in Homicides

JOSHUA D. FREILICH & STEVEN CHERMAK

START researchers have created an Extremist Crime Database (ECDB) recording all documented crimes committed by far-right extremists in the United States between 1990 and 2008. Little information had previously been amassed on the general (non-violent, nonideological) criminal activity of these extremists. The ECDB can be used to investigate such analytical issues as the connections between types of offenses, whether different types of crimes move together on the micro or macro levels, patterns that have changed over time and individual or regional variations in activity. Additional information coded into the ECDB includes group (if applicable), incident, victim, suspect and assessment of open-source information—a total of more than 400 variables.

METHODOLOGY The first stage in data collection for the ECDB included an exhaustive effort to compile source material on crimes committed by right-wing extremists during the time frame. Incidents were identified from existing terrorism databases, official criminal records, scholarly works, newspaper accounts and watch-group reports. The incidents were treated as case studies and cross-referenced between sources; then they were systematically examined using 22 search engines. Coders then reviewed the open-source material, targeted additional searches to fill any information gaps and put the data into the ECDB according to group, incident, victim, suspect and assessment of open-source information.

RESULTS The graphic above illustrates generalized perpetrator data that the ECDB has collected concerning 223 suspects involved in 117 ideologically-motivated homicide incidents in which at least one suspect was linked to the far right. Overall, the ECDB has identified over 275 homicide events (both ideologically and non-ideologically motivated) committed by at least one far rightist. These incidents claimed more than 520 fatalities (over 350, excluding the 1995 Oklahoma City bombing). Importantly, more than 47 law enforcement officers and security guards have been killed in 35+ incidents in which at least one of the suspects was a far rightist. At least 25 far rightists and their confederates were killed by law enforcement personnel.

BOTTOM LINE The ECDB provides a valuable tool for law enforcement, academia and policymakers by expanding knowledge of the criminal histories of far rightists. They can compare the behavior of groups that do and don't employ terrorist methods, examine the wide range of crimes committed by far-right extremists and help develop and refine domestic training curricula for law enforcement and other criminal justice personnel. Most importantly, it suggests precursor criminal behaviors, possibly allowing law enforcement to prevent future terrorist attacks from this quarter.

For more information on this project, please visit: www.start.umd.edu/RR09/proj4.

A Magnet for Terrorism?

Analyzing Terrorists' Decisions to Attack the United States

MARTHA CRENSHAW

START set out to explain why foreign terrorists decide to attack the United States by considering two broad theories: 1) underlying conditions, such as an American military presence in the terrorists' countries of origin or inequalities due to globalization, generate anti-American attitudes and violence, and 2) the strategic objectives of particular groups are well-served by attacking U.S. targets. Research thus far supports the second proposition, particularly since groups operating in the same context often display different behaviors.

METHODOLOGY START researchers produced a list of foreign-based anti-U.S. terrorist groups active since 1968, based on those characterized as such in U.S. government documents. Their designation was complicated by the fact that, over time, many of these organizations have split, merged or fractionated into other terrorist groups. The actual number of anti-U.S. terrorist groups ranges from 50 to 60, depending on how one accounts for these developments. The qualitative analysis was coupled with a quantitative analysis on the behavioral trajectories of the groups, using START's Global Terrorism Database (GTD).

RESULTS The analysis identifies five major objectives behind terrorist attacks:

1. Setting the political agenda
2. Undermining government authority
3. Provoking overreaction by governments
4. Mobilizing popular support
5. Compelling the withdrawal or intervention of an outside power.

Basically, groups tend to attack U.S. targets when one or more of these objectives are served by doing so. However, anti-U.S. groups mostly attacked local targets in their own countries—only approximately 10 percent of the terrorist groups targeted U.S. territory directly, and only 3.4 percent of the terrorist incidents between 1970 and 2004 attributed to anti-U.S. groups were directed against American targets. Most foreign-based anti-U.S. terrorist groups followed a dual strategy that involved domestic and international directions, with most attack activity on the domestic (non-U.S.) front. However, over half of the anti-U.S. attacks have not been attributed to any group, so these findings are provisional.

BOTTOM LINE Reasons for attacking U.S. targets share common attributes over time and across groups. Contrary to explanations that characterize anti-U.S. terrorism as the product of underlying conditions that can be measured in the aggregate, this research project finds that terrorist groups target the United States because such acts fulfill specific objectives often related to local conflicts. It is essential to examine the political ambitions of individual organizations and their relationships with each other as well as with the governments they oppose. It is also important to compare groups that attack the United States to others in the same situation that do not.

For more information on this project, please visit: www.start.umd.edu/RRO9/proj5.

The diagram depicts the set of foreign anti-U.S. terrorist groups since 1968 that were used in the analysis, displayed alphabetically

**FOREIGN ANTI-U.S.
TERRORIST GROUPS
SINCE 1968**



Toxic Connections


Terrorist Organizational Factors and the Pursuit of Unconventional Weapons

GARY ACKERMAN, VICTOR ASAL & R. KARL RETHEMEYER

FACTORS INCREASING THE PROBABILITY OF CBRN PURSUIT OR USE



ECONOMIC EMBEDDEDNESS OF HOST COUNTRY
The more the group's host country trades with the United States or the world, the greater the likelihood that a group will pursue or use CBRN weapons. Why? Perhaps because countries that engage in more trade are usually better integrated with global flows of knowledge and materials needed to produce CBRN weapons.



ALLIANCES The number of alliance relationships formed with terrorist "peers" is strongly related to pursuit of CBRN weapons. Why? Probably because network connections are useful in overcoming the knowledge and materials barriers needed to attain a CBRN weapons capability. Alliance embeddedness, which reflects the idea that the alliances that matter most are those with groups that are themselves well-connected, is even more strongly related to CBRN weapons pursuit than the basic alliance count.



ORGANIZATIONAL MEMBERSHIP Terrorist groups with larger memberships are more likely to have members with skills needed to build a device. Larger groups may also have access to a greater base of financial and material support for CBRN construction. Our analysis weakly supports this conclusion, i.e., at the 10% level of significance.

NOT SIGNIFICANTLY RELATED TO CBRN PURSUIT OR USE

STATE SPONSORSHIP State sponsors may help terrorist organizations gain access to restricted knowledge and materials needed to build CBRN weapons. Conversely, nation-states may wish to keep their terrorist clients from using CBRN weapons for fear that the sponsor will be held accountable for the client's actions. The evidence supports the latter conclusion.

TECHNOLOGY DEVELOPMENT (PROXIED BY ENERGY PER CAPITA) In theory, terrorist organizations hosted in technologically advanced countries may find it easier to find materials, equipment and skilled personnel than groups based in less-advanced hosts. In practice, this is not true. Why? Possibly because an "Internet-enabled," globalized world makes it easier to acquire knowledge and porous borders make it possible to transfer scarce materials.

RELIGIOUS IDEOLOGY Scholars have suggested that religiously inspired organizations are more likely to pursue CBRN terrorism. The results did not support this assumption. Religious groups are more thoroughly allied with one another, so religion matters only insofar as it facilitates alliances. In fact, "religion" may actually be a placeholder for a bundle of other characteristics that help to predict CBRN use.

ORGANIZATIONAL AGE It was hypothesized that the longer a terrorist group has been in operation, the more likely it is to be able to develop the expertise and resources needed for a CBRN attack and the more frustrated it might become with conventional attacks. However, older organizations that seek to be legitimate political organizations may eventually be less likely to use CBRN weapons. We found weak evidence (i.e., 10% significance) for this complex relationship.


CURVILINEAR RELATIONSHIP TO CBRN PURSUIT OR USE

The prospect of terrorists using unconventional weapons has captured the imaginations of not only public officials and the media, but also a growing group of scholars. Yet, little research on this potential threat has been based on systematic analysis of empirical evidence, and almost none has utilized statistical tools. **START** researchers, therefore, applied quantitative techniques to investigate which characteristics of terrorist organizations are most closely associated with attempts to use chemical, biological, radiological or nuclear (CBRN) weapons.


METHODOLOGY One reason for the paucity of research in this area has been the lack of comprehensive data on terrorist organizations. Meaningful results are only possible if one compares organizations that have pursued or used CBRN weapons to the vast majority that have not. Researchers leveraged data from the



YEARS OF CIVIL WAR Some theories suggest that failed or stressed states are more likely to provide havens for terrorist organizations and their development of CBRN weapons. Our results suggest the opposite: The more years of civil strife in the host country, the less likely groups there are to seek CBRN. Terrorist groups in disturbed states may be more focused on and able to use conventional methods, making CBRN weapons less relevant.



CULTURAL EMBEDDEDNESS OF HOST COUNTRY Cultural integration with the West—as proxied by the number of McDonald's restaurants in the group's host country—tends to reduce the likelihood of CBRN pursuit or use. Countries exposed to Western norms, such as the "abhorrent" nature of CBRN weapons, may transfer those standards to terrorist entities based there.



INEXPERIENCE Results show that inexperienced groups (defined as those who have committed three or fewer attacks) are less likely to attempt to use CBRN weapons, possibly because groups need to build up operational expertise and self-confidence before attempting to acquire them.

FACTORS DECREASING THE PROBABILITY OF CBRN PURSUIT OR USE

Monterey Weapons of Mass Destruction database, the Global Terrorism Database and the Terrorist Organization Profiles (TOPs) database, as well as newly collected data, to study the significance of several observable organizational and contextual factors that might influence terrorists' decisions to embark on CBRN terrorism. The research team applied statistical techniques to data on 395 terrorist groups active between 1998 and 2005, including 22 that had used or pursued CBRN weapons.

RESULTS Terrorist organizations are more likely to seek to develop or acquire CBRN weapons if they:

1. Are based in states that have relatively strong economic connections to a globalized world and/or
2. Are embedded in well-developed alliance structures and/or
3. Have a large number of members.

Contrary to suggestions in the literature, researchers failed to find a significant relationship between CBRN pursuit and either religious ideology or state sponsorship. The diagram provides more detail on of these each factor, as well as on factors that are associated with a reduced likelihood to pursue CBRN.

BOTTOM LINE On average, the probability of any terrorist group pursuing or using CBRN weapons is quite small: 1 to 2 percent. Nevertheless, despite inherent limitations in the data and the difficulties of predicting the future from the past, preliminary analysis suggests that the presence of the above-mentioned features makes terrorist groups more likely to pursue CBRN weapons than the vast majority of such groups. Further research intends to look at each type of weapon individually, as well as other types of terrorist actors (such as amateur cells and lone wolves). Expanded versions of this type of analysis could prove extremely useful to help law enforcement and intelligence agencies with threat prioritization and early detection.

For more information on this project, please visit: www.start.umd.edu/rroq/proj6.

Deterrence or Backlash?

The Impact of British Counterterrorism Strategies on Political Violence in Northern Ireland

GARY LAFREE, LAURA DUGAN & RAVEN KORTE

Researchers have frequently argued that terrorists rely on government responses to mobilize the sympathies of would-be supporters. These responses to terrorism might produce either a positive deterrent effect (reducing further terrorism), or a negative backlash (increasing terrorism). START researchers focused on six British strategies designed to reduce political violence in Northern Ireland from 1969 to 1992. They used an innovative application of a statistical method to estimate the impact of these interventions on the risk of new attacks by Republican organizations in Northern Ireland. This research underscores the importance of understanding that certain government responses may be more likely to increase rather than decrease terrorism.

METHODOLOGY To research deterrent and backlash dynamics, START researchers analyzed 2,600 attacks by Republican terrorist organizations in Northern Ireland from 1969 to 1992, as coded from the Global Terrorism Database (GTD) and supplemented by additional events in the Conflict Archive on the Internet (CAIN). The attacks included those by not only the Irish Republican Army (IRA), but also other Republican groups such as the Irish National Liberation Army and the Irish People's Liberation Organization.

The six interventions that START tested were the Falls Curfew, internment, Operation Motorman, the criminalization/Ulsterization program, and the Loughall and Gibraltar targeted assassinations (see figure for details). These interventions were chosen because they were well-known and because they represented a variety of criminal justice and military responses, as indicated in the figure. Because of the complexity of the conflict in Northern Ireland, a number of control variables were added to account for rival explanations. These variables included the number of armed forces in Northern Ireland one year prior to each attack; an indicator, "Bloody Sunday," that

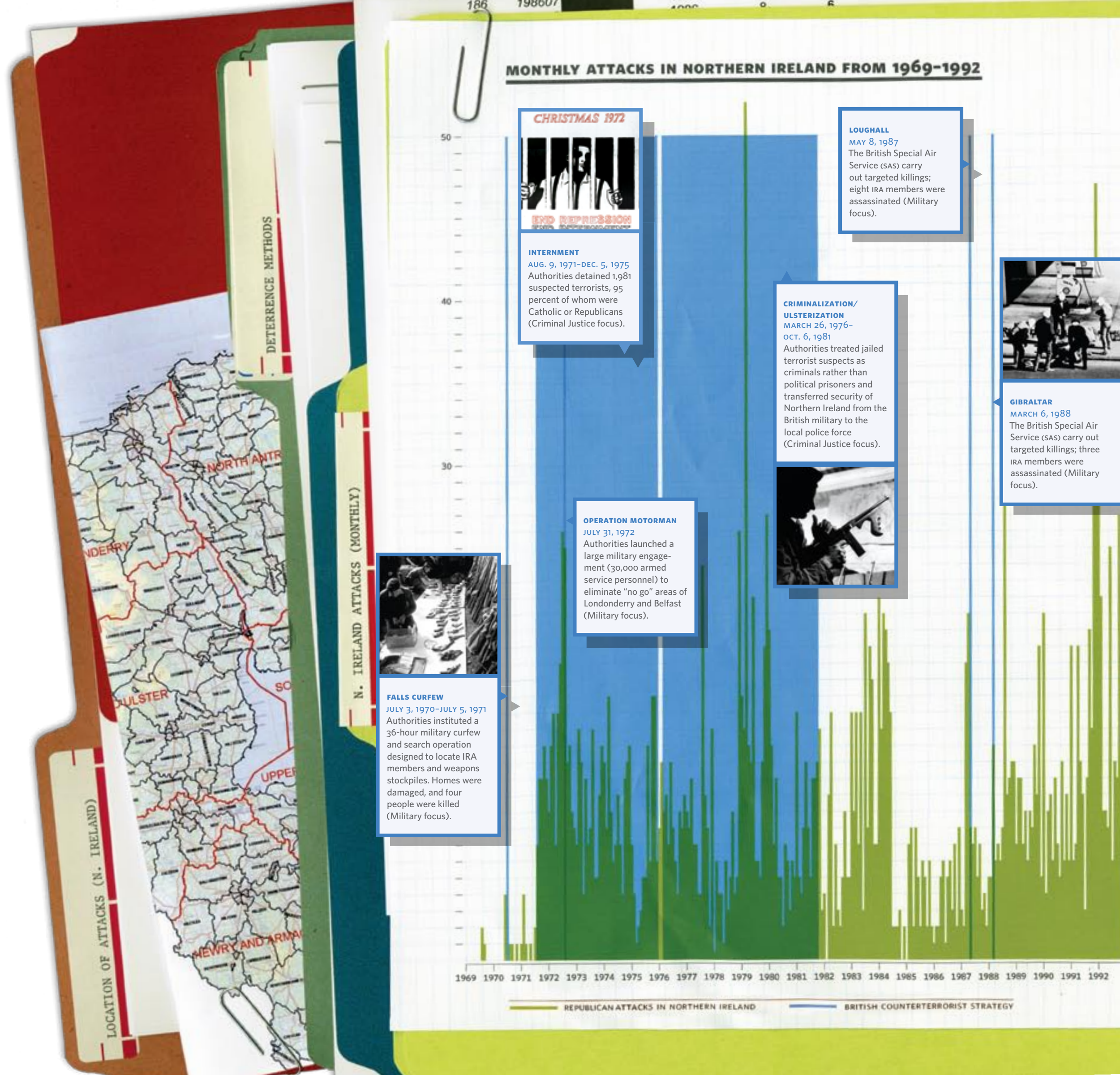
controls for the possible escalation effects from this pivotal incident in 1972; the number of Loyalist attacks during the previous month; the success of each terrorist strike based on the specific methods employed and non-terrorist-related crime and criminal violence over time.

The range of counterterrorism interventions provides an adequate test of the impact of counterterrorism measures on deterrence and backlash. The modified version of a Cox proportional hazard model accounted for the variation between attacks in order to estimate the impact of each intervention.

RESULTS Republican terrorist attacks rose after the Falls Curfew and internment initiatives, fell after Operation Motorman and fluctuated during the criminalization program used in the late 1970s and early 1980s. A general trend of an increase in Republican attacks follows the Loughall and Gibraltar incidents in 1987 and 1988, respectively.

BOTTOM LINE Three of the six British interventions (internment, criminalization/Ulsterization and Gibraltar) in Northern Ireland produced a backlash effect (an increased risk of future attacks). Only Operation Motorman resulted in a deterrent effect (a decreased risk of future attacks). Falls Curfew and Loughall were not significant for either backlash or deterrence. This research largely supports the contention that harsh military and criminal justice interventions in response to terrorism and political violence are often unsuccessful and can even be counterproductive. The potential exists to apply deterrent and backlash models to additional areas of political conflict. It remains to be seen whether similar interventions would have similar effects to those seen in Northern Ireland.

For more information on this project, please visit: www.start.umd.edu/RR09/proj7.



Public Preparedness for Terrorism

Findings from the National Survey of Disaster Experiences and Preparedness

LINDA BOURQUE, DENNIS MILETI, MEGUMI KANO & MICHELE WOOD

To determine which factors are most closely associated with household disaster preparedness behavior, START researchers conducted the largest, scientifically rigorous survey of U.S. domestic preparedness. This survey tested hypotheses using factors that past research had found to be important and focused on what people have actually done to prepare, rather than on their opinions about how prepared they were.

which information had been received; activities that respondents had observed others do; the perceived effectiveness of different preparedness and avoidance activities; self-reported knowledge about terrorism preparedness; perceived future risk of disasters that could affect the home, community and nation; perceived resilience of self, community and nation to future disaster events; perceptions of the completeness and honesty of information provided by agencies at the local, state and national levels and standard demographic characteristics. The data were then analyzed using a series of sophisticated statistical models.

METHODOLOGY The survey was conducted between April 2007 and February 2008 on a representative sample of 3,300 households in the continental United States. Three high-visibility areas—New York City, Los Angeles County and the greater Washington, D.C., area—were over-sampled so that generalizations could be made to them as well as to the nation as a whole.

RESULTS The findings describe the state of preparedness and risk avoidance behavior throughout the nation, in particular in New York City, Los Angeles County and the Washington, D.C., area and across the nation's major racial/ethnic minority groups. Strong and clear evidence was discovered about the fundamental processes that motivate Americans to prepare, processes that turned out to be consistent across all geographic areas and ethnic subpopulations. Most surprising, the results revealed that people's perceptions about the level of terrorism risk or their trust in all levels of government do not affect their preparedness behavior. What matters most is the knowledge people have about what to do to prepare and how effective preparedness is likely to be. This is good news since it implies that there are "pliable" pathways by which public readiness for terrorism and other disasters can be increased in the United States by expanding, improving and repeating public education and information campaigns.

For more information on this project, please visit: www.start.umd.edu/RR09/proj8.

The survey explored four questions:

1. What have Americans done to prepare for terrorist acts and disasters?
2. What steps have Americans taken to avoid or reduce exposure to terrorism?
3. What motivates Americans to prepare for terrorism in particular, to prepare for disasters in general and to avoid terrorism risk?
4. How can policy and programs to increase public readiness for terrorism accomplish more?

Based on research and theory about what motivates household readiness behavior, data were collected on the many factors that might explain public readiness, including: past events experienced; the types, sources and channels over

A portion of the survey examined the preparedness or avoidance actions Americans have taken. Preparedness actions surveyed included whether respondents had developed emergency plans, stockpiled supplies, purchased things to make them safer, learned more about terrorism, duplicated important documents or become more vigilant. Respondents were also asked about avoidance actions, specifically whether they had avoided travel by plane, train or public transportation, changed their handling of mail, avoided certain cities, avoided tall buildings or avoided national landmarks. This figure illustrates the responses received from 3,300 survey respondents.

Recommendations for Motivating Public Preparedness for Terrorism and Other Disasters

Stop trying to convince people they are at risk: It has no good effect on public preparedness or avoidance behavior.

Provide public information from as many different sources and with as much consistency across all messages as possible.

Distribute information over as many different channels as possible, as often as possible and over extended periods of time.

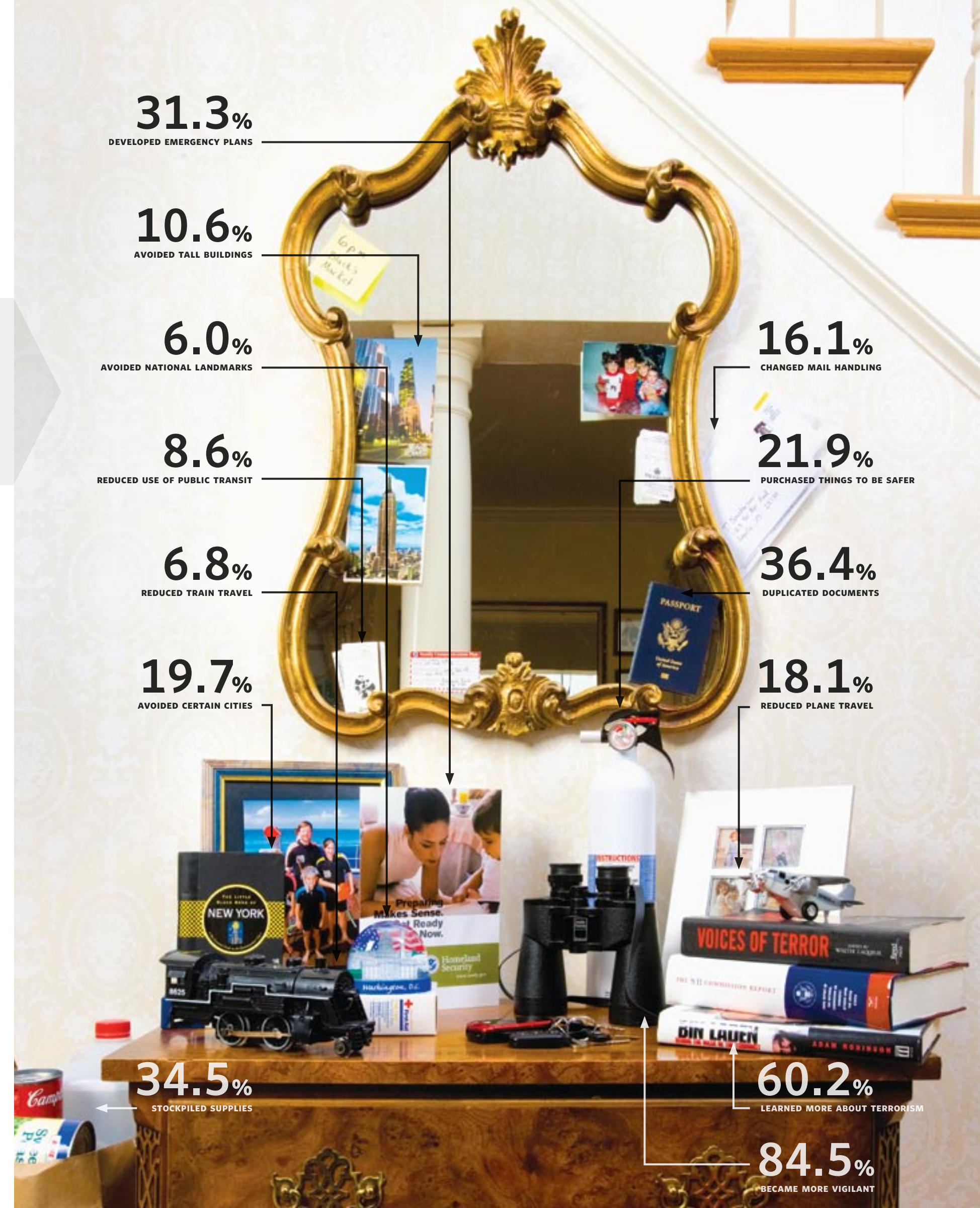
Tell people what they should do to prepare and where to find out more about how to do it.

Tell people how their actions can reduce their losses; don't give them risk estimates.

Supplement messages with physical and social cues.

Make public readiness visible and ubiquitous.

Get people to talk about readiness with each other, to encourage a "milling" or "viral" effect.



Community Resilience

The Community Assessment of Resilience Tool (CART)

BETTY PFEFFERBAUM, ROSE PFEFFERBAUM & FRAN NORRIS

Community resilience is the ability of a community to take meaningful and collective action in the face of a large-scale negative event. START researchers have developed the Community Assessment of Resilience Tool (CART) to assess community resilience. CART is not a mechanism to compare or rank communities, however, because every community is unique in terms of its strengths and the challenges that it faces in preventing and mitigating terrorism and other disasters. By participating in a process initiated by CART, community members can increase community resilience through cooperation and civic engagement.

METHODOLOGY CART is an integrated package that provides guidance on how to stimulate community members to communicate, to identify and analyze community problems, and to take action. The first step in the CART process is to collect demographics and interview and survey key stakeholders. Community members are surveyed on 23 items, which range from whether they feel connected to their community to whether they believe that the community prepares for disasters. The assessment process can be modified with the help of partners in the community, developing unique resilience items.

Analysis of community strengths and challenges constitutes the next step in the CART process. This involves engaging focus groups and employing other group processes such as the Delphi method, nominal group technique, and an affinity diagram. Finally, the process can turn to strategy development, implementation, and adoption, as well as additional assessment activities, which provide feedback throughout the process. The result is the construction of a profile of the community that provides an assessment of overall community resilience to terrorism and disasters.

RESULTS Three major implementations of CART are under way. A neighborhood application is generating resident support and involvement in community renewal in five vulnerable neighborhoods in a city of 250,000 residents. CART is contributing to strategic planning and preparedness programming in two of the neighborhoods, with the other three to follow. A community-wide CART application in a city of 115,000 residents is using local organizations to reach multiple constituents and build broad-based support for community development. A second administration of the CART survey has recently been completed in this city, setting the stage for identification of specific community resilience goals and strategies. A CART application for affiliated volunteers in a major metropolitan area is beginning to involve organized community volunteers in identifying barriers to and strategies for building community resilience.

BOTTOM LINE Assessing community resilience through CART stimulates communication, analysis and action. In addition, harnessing a community's self-awareness, skill development and collaboration further increases community resilience to terrorism and other disasters. Not only does the community benefit, but the individuals who participate in the CART process increase their knowledge of the community and its functions, as well as the role of the community in the prevention and mitigation of terrorism and disasters.

The Extended Community Assessment of Resilience Tool (CART-E), which is under development, will expand the methods and instruments contained in CART. These include georeferencing, stakeholder analysis, neighborhood tours and vulnerability assessments. CART-E will identify barriers to disaster prevention, preparedness, response and recovery.

For more information on this project, please visit: www.start.umd.edu/RR09/proj9.

CART SURVEY CORE COMMUNITY RESILIENCE ITEMS*

- 1 Actively prepare for future disasters
- 2 Work with agencies outside the community
- 3 Built infrastructure (roads, schools, hospitals, transportation systems)
- 4 People feel like they belong in the community
- 5 Discuss issues to improve the community
- 6 Awareness of community issues
- 7 Services and programs to help people after a disaster
- 8 People have hope for the future
- 9 People help each other
- 10 A competent workforce
- 11 People are treated fairly
- 12 People know where to go to get things done
- 13 People are able to get the services they need
- 14 Effective leaders
- 15 Emergency services during a disaster
- 16 Communication with leaders
- 17 Natural resources (oil, ports, farmland)
- 18 Disaster prevention

ITEMS NOT SHOWN

- 19 People committed to the well-being of the community
- 20 People creating solutions to improve the community
- 21 Community learns from past success/failures
- 22 Community solves problems to reach goals by developing skills and finding resources
- 23 Community sets future goals and priorities

* Each item contributes to the overall resilience of a community.

The CART survey also includes demographics and items developed in conjunction with partners involved in any particular implementation.



TERRORIST GROUP FORMATION AND RECRUITMENT

Al-Qa'ida Content Analysis

LEAD INVESTIGATOR

Deborah Cai

KEY PROJECT PERSONNEL

Sanja Sipek, Susan Allen and David Payne

RESEARCH QUESTIONS

What trends can be identified across messages from al-Qa'ida's leadership? Do trends in the leaders' messages relate to the actions of al-Qa'ida?

METHODOLOGY AND

CURRENT RESEARCH FINDINGS

This project examines communication trends in 57 messages delivered via video and the Internet by Osama bin Laden and Ayman al-Zawahiri. The researchers studied English translations of these messages, developing coding schemes to identify themes and rigorously analyze language patterns within the messages. Findings thus far indicate that communication by al-Qa'ida's leadership changes over time in response to political changes in the international arena. The themes evolved from the threat of U.S. forces in the Middle East to what al-Qa'ida presented as a U.S. war on Islam.

For more information on this research, visit: www.start.umd.edu/RR09/proj10.

Militant Islamist Networks in the West

LEAD INVESTIGATOR

Jeffrey M. Bale

RESEARCH QUESTION

What are some of the key characteristics of the various underground Islamist organizations and jihadist networks operating in the West? Special emphasis is placed on ideologies, political and strategic objectives, organizational structures, logistical and operational capabilities and documented activities.

METHODOLOGY AND

CURRENT RESEARCH FINDINGS

The project examined primary sources (including ideological treatises, Web sites, public statements, judicial materials and reports produced by police and security services) and reliable secondary sources written by scholars and journalists dealing with Islamist groups and networks, including jihadist cells. The research finds that Islamist groups operating in the West, however diverse and factionalized, tend to fall into one of three primary categories: proselytizing groups that have adopted a "gradualist" long-term strategy to Islamize the West (like the Muslim Brotherhood), extremely radical groups that temporarily eschew violence for both theological and tactical reasons (like Hizb ut-Tahrir) and the so-called jihadists, i.e., violent armed groups obsessed with waging "jihad of the sword." The research also reveals that the ostensibly non-violent Islamists who are employing a sophisticated "gradualist" strategy to attain hegemony over Muslim diaspora communities and, ultimately, to Islamize the West itself, may pose the greatest long-term security threat to the West.

For more information on this research, visit: www.start.umd.edu/RR09/proj11.

Modeling and Simulation of Individual and Group Decision-making

LEAD INVESTIGATORS

Jonathan Wilkenfeld and Victor Asal

KEY PROJECT PERSONNEL

Anthony Lemieux

RESEARCH QUESTIONS

What factors can encourage group mobilization? What is the effect of social and personality factors on an individual's support for extremist views and tactics? What is the impact of selective information on the probability that an individual will view terrorism as legitimate or appropriate?

METHODOLOGY AND

CURRENT RESEARCH FINDINGS

Researchers performed scenario-based simulation experiments involving human participants, as well as quantitative analyses of the resulting data. Findings reveal that high levels of grievance (particularly in the form of oppressive discrimination) have the potential to motivate terrorist attacks, particularly among people who are higher on the psychological scale of Social Dominance Orientation, among several other structural and social/personality factors that were under consideration in this research.

For more information on this research, visit: www.start.umd.edu/RR09/proj12.

Radicalization of U.S. Prisoners

LEAD INVESTIGATORS

Bert Useem and Obie Clayton

RESEARCH QUESTIONS

What are the social dynamics regarding the spread of extremist ideologies among prisoners? What are U.S. correctional agencies' strategies for controlling the spread of these ideologies?

METHODOLOGY AND

CURRENT RESEARCH FINDINGS

Using interviews, START researchers collected data on the presence of radical ideologies among inmates and on the strategies and policies developed by correctional agencies to inhibit their spread. Analyses reveal that the level of prisoner radicalization in the United States is modest. Order and stability in U.S. prisons have been achieved as a result of structured reforms; prison officials have successfully implemented efforts to counter the "importation" of radicalism; and correctional leaders have infused anti-radicalization into the mission of their agencies. Nonetheless, the probability of prisoner-generated terrorism is above zero, and continued vigilance is needed. The strategies for curbing radicalization

include closely monitoring religious personnel who provide services to inmates, education and other programming to build inmates' confidence in their futures and effective coordination with external law enforcement to ensure the rapid and accurate flow of information.

For more information on this research, visit: www.start.umd.edu/RR09/proj13.

Role of the Media in the Recruitment of Terrorists and in the Reduction of Terrorism: Lessons from Indonesia

LEAD INVESTIGATOR

Douglas M. McLeod

KEY PROJECT PERSONNEL

Frank P. Hairgrove

RESEARCH QUESTIONS

What are extremists' communication strategies in three arenas in Indonesia: mass media, content created by extremist groups (including Web sites) and interpersonal communication? What is the relative impact of the media compared to other mobilization mechanisms in Indonesian society?

METHODOLOGY AND

CURRENT RESEARCH FINDINGS

START researchers have begun using content analysis to code and classify research on mobilization processes in Indonesia. Research demonstrates that the imagery related to the Islamic historical concept of the Caliph is a strong motivator within Muslim discourse, and that pious zealots are often swept into the political expression of jihad while attending small study groups. The research also suggests that mass media do not have a "push" role into radicalism (i.e., media persuasion); rather, they have a "pull" role in which radically oriented Muslims seek out media that reflect their internal interests and reinforce existing predispositions.

For more information on this research, visit: www.start.umd.edu/AR09/proj14.

Shifting Terrorism Trends Across Time and Space

LEAD INVESTIGATORS
Susan Cutter and Diansheng Guo

RESEARCH QUESTIONS
What is the historical and geographic distribution of terrorist activity? Further, what are the contextual social, political and economic conditions in locations where terrorist activity occurs?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
The project involved geo-referencing all data on terror events included in the Global Terrorism Database, merged with geo-referenced data from the Memorial Institute for the Prevention of Terrorism, the Centre for Defence & International Security Studies and the State Department. Advanced spatial modeling assessed both time- and location-based patterns in the data. Results show that terrorist incidents in the United States are largely a product of Americans acting against domestic targets throughout the nation, with concentrations in the Northeast, Florida and the Midwest, as well as on the West Coast.

For more information on this research, visit: www.start.umd.edu/RR09/proj15.

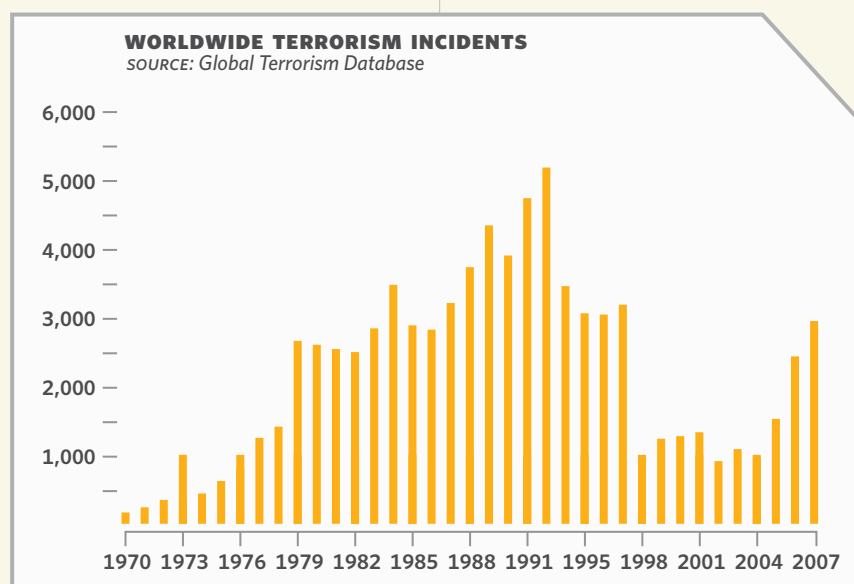
State Response and Terrorist Activity

LEAD INVESTIGATOR
Clark McCauley

RESEARCH QUESTION
Can we develop a dynamic model of the interactions between terrorist action and state response?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
Terrorists count on state response to their attacks to radicalize and mobilize terrorist sympathizers. State response, to the extent that it injures or outrages those less committed than the terrorists, does for the terrorists what they cannot do for themselves. This is the terrorist strategy

of “jijitsu politics”: using the government’s greater strength against itself. Countering this strategy requires avoiding collateral damage in fighting terrorism—and criminal justice methods typically produce less collateral damage than warfare. From this perspective, a dynamic model of the interactions between terrorist action and state response will need to include the following elements: 1) Appraisal of the impact of terrorist action, including public statements, on terrorism sympathizers, terrorism supporters, possibly multiple



audiences in the state attacked, and possibly relevant bystander groups and states; 2) Appraisal of the impact of state responses, including public statements, on terrorism sympathizers, terrorism supporters, possibly multiple audiences in the state attacked and possibly relevant bystander groups and states; and 3) Continual updating of these two appraisals as the cycle of attacks and responses continues over time. Note that these three elements instantiate two generalities that are already familiar: Terrorism is politics, and success against terrorists cannot be evaluated by counting dead terrorists.

For more information on this research, visit: www.start.umd.edu/RR09/proj16.

Tracking Sympathy and Support of Muslims for Terrorism: International Surveys

LEAD INVESTIGATORS
Clark McCauley and Sophia Moskalenko

RESEARCH QUESTIONS
Under what circumstances does legal activism lead individuals to illegal political action, including terrorism? Can tendencies toward participation in legal and illegal political action (activism vs. radicalism) be measured in population surveys? What is the

difference between Muslims who sympathize with terrorist goals and Muslims who justify terrorist attacks?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
This project analyzed polls of British Muslims and START surveys of Moroccans, Egyptians, Pakistanis and Indonesians. Initial findings suggest increasing levels of sympathy for framing the war on terrorism as a war on Islam. This sympathy is not predicted by religiosity. It is predicted better by political preferences than by socioeconomic frustration or perceived discrimination. A nontechnical primer on conceptualizing and measuring

radicalization in survey research is under development.

For more information on this research, visit: www.start.umd.edu/RR09/proj17.

Where the Extremes (Might) Touch

LEAD INVESTIGATORS
Gary Ackerman and Jeffrey Bale

RESEARCH QUESTION
In spite of their apparent ideological differences, might certain radical right- and left-wing groups in the West collude on an operational level with transnational Islamist terrorist networks such as al-Qa’ida?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
The study builds a theoretical model of cross-ideological terrorist collaboration, incorporating alliance and game theories. The model demonstrates that, while unlikely and facing several obstacles, an operational collaboration between far left- or right-wing and Islamist terrorist groups is possible. This theoretical finding is being tested against empirical data on a wide variety of terrorist groups. Preliminary results suggest substantial cross-ideological rhetorical support, but far less evidence of operational collaboration, and that the greatest threat might stem from right- and left-wing extremists who undergo conversion to the Islamic faith and seek to bridge these different identities.

For more information on this research, visit: www.start.umd.edu/RR09/proj18.

TERRORIST GROUP PERSISTENCE AND DYNAMICS

The Effects of Terrorism on Police Effectiveness in Crime Fighting and Public Expectations of and Attitudes Toward the Police: A Multimethod Study of the Israeli Experience

LEAD INVESTIGATOR
David Weisburd

KEY RESEARCH PERSONNEL
Badi Hasisi, Simon Perry, Tal Jonathan and Gali Aviv

RESEARCH QUESTIONS
How has the major homeland security role of the Israeli Police influenced the effectiveness of police in combating ordinary crime and disorder problems? How has it influenced public attitudes toward and expectations of local police agencies?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
This project is using community surveys, historical analysis, analyses of police data and interviews with community members, community leaders and retired police officials. Initial findings suggest that terrorist threats have a significant impact upon police performance. Overall, as threat levels rise, clearance rates of outstanding cases decline. It is hypothesized that attention to terrorism draws resources away from traditional police functions. At the same time, in cities and towns with large Arab majorities the effect of threat is reversed, with higher terrorist threat levels associated with higher clearance rates. It is hypothesized that high rates of surveillance in these areas during high threat periods lead to the observed results. During the Second Intifada, support and general positive attitudes toward the police increased. As the threat declined, public attitudes returned to previous and even lower levels. These findings are hypothesized to reflect a “rally effect” during periods of high threat.

For more information on this research, visit: www.start.umd.edu/RR09/proj19.

Hizb ut-Tahrir in Central Asia: The Challenge of a Non-Violent Radical Islam

LEAD INVESTIGATORS
Emmanuel Karagiannis and Clark McCauley

RESEARCH QUESTIONS
Why has Hizb ut-Tahrir emerged in Central Asia? Does Hizb ut-Tahrir, a non-violent radical Islamic organization in Central Asia and elsewhere, represent a viable alternative to militant Islam, or does this group serve as a support unit for terrorist groups with similar political goals (e.g., al-Qa’ida or the Islamic Movement of Uzbekistan)?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
Interviews were conducted with scholars, security experts, mullahs and imams, journalists, diplomats, government officials and group sympathizers in Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Lebanon, Great Britain and the Palestinian Territories. Findings suggest that the rise of Hizb ut-Tahrir in Central Asia has complex origins. Dire economic conditions in the region have provided fertile soil for Islamist groups eager to change the social order, like Hizb ut-Tahrir. Also, Hizb ut-Tahrir has been able to mobilize support through social networks and informal institutions, and it has solid, if mysterious, financial resources. Moreover, some people are attracted to the prospect of an Islamic government propagated by the group due to the lack of legitimate channels for protest against the authoritarian governments of Central Asia. In addition, Hizb ut-Tahrir has framed its aims in ways that will generate a popular following. Finally, the disintegration of the Soviet Union has produced an ideological vacuum among Central Asia’s devout Muslims that has been filled by Hizb ut-Tahrir. The study also compared Hizb ut-Tahrir with violent Islamic groups in Central Asia like al-Qa’ida and the Islamic Movement of Uzbekistan. Hizb

ut-Tahrir’s interpretation of early Islamic history explains its non-violent political methodology. Therefore, the growing popularity of Hizb ut-Tahrir in Central Asia suggests the possibility of encouraging a radical Islam that does not support terrorism.

For more information on this research, visit: www.start.umd.edu/RR09/proj20.

More Bang for the Buck? Examining the Effect of Technological Change on Terrorist Use of Weapons of Mass Destruction

LEAD INVESTIGATOR
Gary Ackerman

RESEARCH QUESTIONS
What are the behavioral and technological mechanisms behind changes in the instruments of terror? What is the effect of emerging technologies on terrorists’ weapons selection, particularly in the context of so-called weapons of mass destruction (WMD)?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
The study focuses upon various models of technological change that are beginning to be used in social science, particularly the concept of disruptive versus sustaining technologies. This is supplemented by case studies of weapons innovation and diffusion. Preliminary findings confirm that many of the structural elements of innovation diffusion described in the business operations literature apply in the case of weapons in general and WMD in particular. Specifically, the choice to adopt a new weapon is not determined solely by instrumental considerations of strategic or tactical advantage but is also a function of cultural compatibility, organizational dynamics and individual attitudes.

For more information on this research, visit: www.start.umd.edu/RR09/proj21.

Patterns of Radicalization in Political Activism: The Extreme Right in Italy and Germany

LEAD INVESTIGATOR
Donatella della Porta

KEY RESEARCH PERSONNEL
Manuela Caiani and Claudius Wagemann

RESEARCH QUESTIONS
What is the nature of the relationship among extremist groups in Italy and Germany, and how do these relationships impact the behaviors of groups? How do extreme right-wing radical groups frame their agenda and ideology to encourage mobilization for anti-government action?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
Case studies were conducted on extreme-right political parties, political movements and subcultural skinhead groups in Italy and Germany using a range of methodologies and sources to identify their different properties (frame analysis, social network analysis and protest event analysis). Analyses shed light on the cognitive mechanisms, communicative dimension, motivations and world views of right-wing radicalization. Social network analysis based on online links between 100 extremist right-wing organizations indicates that Italian and German extremist groups increasingly use the Internet for propaganda, recruitment and internal communication. However, differences have emerged between the two contexts. The Italian extreme-right network appears to be very fragmented, highly diversified and difficult to coordinate (“policephalous network”), whereas the German network is denser and much more concentrated on a few central actors (“star structure”). These differences are mainly due to the political opportunity structures in the two countries. Data showed that the extreme right (in both countries) uses a variegated repertoire that appeals to various constituencies. Forms of action differ by

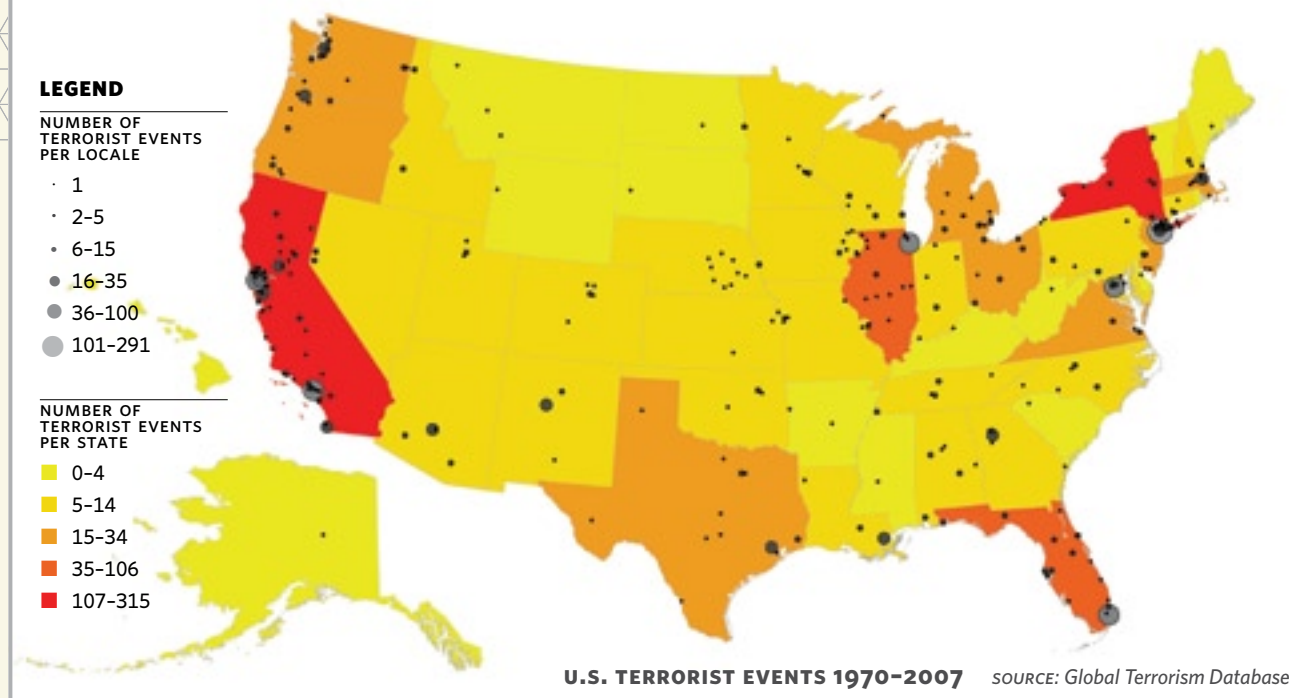
LEGEND

NUMBER OF TERRORIST EVENTS PER LOCALE

- 1
- 2-5
- 6-15
- 16-35
- 36-100
- 101-291

NUMBER OF TERRORIST EVENTS PER STATE

- 0-4
- 5-14
- 15-34
- 35-106
- 107-315



U.S. TERRORIST EVENTS 1970-2007 SOURCE: Global Terrorism Database

type of group, but they are also imported from opposite groups (the left) as well as the subcultural milieu. Escalation develops often during conflicts with the (perceived) enemy: the left (as in the 1970s), but also migrants. Finally, looking at the frames used by the extreme right, we found a mix of traditional values and innovative (subcultural) elements. Especially in Italy, the opposition to civil rights is often bridged with a conservative interpretation of Catholicism. A specific contemporary element is the reference to issues such as globalization or to a "precarious generation."

For more information on this research, visit: www.start.umd.edu/RR09/proj22.

Social Network Analysis for Combating Terrorist Networks

LEAD INVESTIGATORS

Victor Asal and R. Karl Rethemeyer

RESEARCH QUESTIONS

What are the clusters of terrorist groups connected by their engagement in similar terrorist actions? Conversely, what clusters of terrorist actions (e.g., hostage-taking, bombing, suicide bombing, etc.) are connected by the terrorist groups perpetrating them?

METHODOLOGY AND

CURRENT RESEARCH FINDINGS

The research team has collected detailed information on the most lethal terrorist organizations operating around the world since 1985, with data collected at a series of time intervals over the groups' existence. The resultant data, known as the Big, Allied and Dangerous data set, includes information on organizational characteristics, including data on alliances of each group with other terrorist organizations, as well as with other organizations (both violent and non-violent). Stochastic analyses of these new data indicate that some organizations are prone to connect for disparate reasons, and that

the "enemy of my enemy" logic, ideology and regional factors are key considerations in the formation of cross-group alliances. Initial analyses also indicate that the most networked terrorist organizations are also the most likely to be lethal.

For more information on this research, visit: www.start.umd.edu/RR09/proj23.

GLOBAL TERRORISM DATABASE (GTD)

The Global Terrorism Database (GTD), directed by Gary LaFree and Laura Dugan, contains information on over 80,000 terrorist attacks from 1970 to 2007 and is now the most comprehensive unclassified database on terrorist events in the world. More than two dozen START research projects are currently using the GTD, including research on the effectiveness of countermeasures used by governments, the impact of terrorist strategies on their ability to sustain attacks, the spatial concentration of terrorist attacks over time, the extent to which terrorism occurs in waves, and case studies of specific terrorist groups and terrorist activity within countries. Public policy analysts throughout government are now using the GTD. In March 2009, the GTD received a certificate of recognition from the Department of Homeland Security's Science and Technology Directorate for its contributions to helping government adapt strategies for countering deadly attacks.

GTD HIGHLIGHTS:

- Identifies more than 27,000 bombings, 12,000 assassinations and 2,900 kidnappings since 1970
- Includes information on the date of the event, target and location, type of attack, number of casualties, perpetrator (suspected or known) and over 100 other variables for each event
- Provides details on more than 1,200 terrorist events within the United States since 1970
- Compiled using more than 3,500,000 news articles and 25,000 news sources
- Received 36,000 visitors to the GTD Web site the first month it was online

To access the latest version of the GTD, visit: www.start.umd.edu/gtd. ▶

Understanding Group Desistance from Terrorism

LEAD INVESTIGATOR

Clark McCauley

KEY RESEARCH PERSONNEL

Gary LaFree, Laura Dugan and Julie Huang

RESEARCH QUESTIONS

How and why do groups desist from terrorism? To what degree is desistance triggered by factors internal to an organization versus being triggered by external considerations?

METHODOLOGY AND

CURRENT RESEARCH FINDINGS:

This research focused on case studies in which groups showed sudden desistance

from terrorism, namely the Armenian Secret Army for the Liberation of Armenia, the Justice Commandos of the Armenian Genocide, and the Islamic Group in Egypt. A statistical method was used to assess the impacts of specific events on the trajectory of group attacks. Results indicate that the rapid demise of a terrorist group depends on a collection of factors, including leadership splits, group fission, loss of a secure base, diaspora support and foreign sympathizers. Notably, rapid decline followed terrorist "mistakes" in expanding targeting beyond what sympathizers and supporters would countenance.

For more information on this research, visit: www.start.umd.edu/RR09/proj24.

SOCIETAL RESPONSES TO TERRORIST THREATS AND ATTACKS

Best Practices for Preparing Communities: Citizen Engagement in Public Health Emergency Planning

LEAD INVESTIGATOR
Monica Schoch-Spana

RESEARCH QUESTION
What is the value of active collaborations with citizens and civil society groups in preparing for, responding to and recovering from an extreme health event such as bioterrorism?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
Researchers reviewed relevant literature on the sociology of disasters and epidemics and the theory and practice of public participation, and they conducted guided discussions and formal elicitation from experts and practitioners who comprised the project's Working Group on Community Engagement in Health Emergency Planning. Based on the formal evidence and on the professional judgment of working group members, the study counseled U.S. decision makers to build public health preparedness institutions that incorporate citizen input and collaborate with civil society groups. Such a partnership, the project concluded, will enhance officials' ability to govern in a crisis, improve application of communal resources and help reduce an event's social and economic costs. The civic infrastructure—people who live, vote, play, work and worship together—should be involved in emergency planning and act before, during and after an event. Civic groups can help officials decide in advance who gets scarce medical resources, give aid when the professionals cannot be there and comfort survivors over time.

For more information on this research, visit: www.start.umd.edu/RR09/proj25.

Community Field Studies and Analyses of Cross-Sector Preparedness Networks

LEAD INVESTIGATOR
Kathleen Tierney

KEY PROJECT PERSONNEL
Jeannette Sutton

RESEARCH QUESTIONS
How are homeland security programs being implemented at the local level in typical U.S. communities? What strategic and planning guidance can be offered based on data about homeland security programs?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
Interviews were conducted with representatives of first-responder agencies; government agencies; public health, medical and mental health organizations; school districts; media outlets; organizations representing the business community; and the voluntary and community-based sector. Social-network analysis has also been utilized in this study. Specifically, the research has focused on Urban Area Security Initiative (UASI) communities in the United States designated by the Department of Homeland Security as high-risk regions. Findings indicate that UASI funding and DHS guidance have improved regional coordination and collaboration, but a number of obstacles to cooperation remain, such as dominance of large cities within regions and state involvement in UASI programs.

For more information on this research, visit: www.start.umd.edu/RR09/proj26.

Death in a Small Package—Anthrax: A Case Study of Societal Responses to Biological Threats

LEAD INVESTIGATOR
Susan D. Jones

RESEARCH QUESTIONS
How did Bacillus anthracis, a bacterium that causes the agricultural disease of anthrax, become a biological weapon? What lessons can be learned from the case of anthrax about societal perception of and response to biological threats?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
The research examined public and scientific reactions to anthrax outbreaks throughout history by collecting and analyzing historical data, including government documents, published reports, scientific articles and unpublished data, newspaper articles, surveys and articles from popular journals. Case studies from different areas of the world included anthrax in farm animals, outbreaks in wool factory workers, the development and use of biological weapons during World Wars I and II, the response to the Sverdlovsk outbreak in the 1970s and the U.S. anthrax letter attacks of 2001. *Bacillus anthracis'* unique biological properties made it a devastating disease for humans and their livestock, but a particular socio-historical process reshaped this microorganism into a biological weapon. In the modern era, anthrax outbreaks have incited panics and fears that many have characterized as out of proportion to the actual threat for four reasons: 1) The disease has a long history and deadly reputation; 2) the organism's ability to sporulate means that it is easily disseminated as a weapon; 3) it has been used in the past as a weapon against humans, or spread accidentally, in the United States, the former USSR, southern Africa and Manchuria and; 4) despite all efforts, we have not been able to domesticate and contain *Bacillus anthracis*. Much more coordination and truly

integrated investigative methodologies are needed in order to respond quickly and effectively to biological threats such as an anthrax attack.

For more information on this research, visit: www.start.umd.edu/RR09/proj27.

Electronic Media Coverage of Terrorism and Related Homeland Security Incidents

LEAD INVESTIGATOR
Lisa Keränen

KEY RESEARCH PERSONNEL
Hamilton Bean, Virginia Sanprie, Margaret Durfy, John McClellan and Tim Kuhn

RESEARCH QUESTION
How do electronic media thematize homeland security in cases of actual or suspected terrorism?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
This research employed quantitative and qualitative textual analyses of terrorism-related news coverage across electronic, print and television media. A review of extant research concerning media coverage of terrorism found a need for comparative, multimodal studies of terrorism reportage and raised questions concerning whether news patterns in electronic media resemble those of traditional media sources. Using centering resonance analysis (CRA, a data-mining algorithm) and qualitative analysis, a study of media coverage of the 2007 Boston bomb scare found few discernible differences across media channels during the two-week life cycle of news coverage, which focused mainly on fact reporting. Citizen message boards and blogs, however, framed the incident in terms of the Sept. 11 attacks, revealing how suspected acts of terrorism are interpreted in relation to that iconic event. A second study of news discourse following the "7/7" London bombings of

2005 examined how images of “resilience” solidified or undermined a sense of national unity and shaped public responses to terrorism. Both studies explain how electronic media serve as a critical site for assessing and participating in public discussions about terrorism and for discerning the contested and contradictory meanings of homeland security.

For more information on this research, visit: www.start.umd.edu/RR09/proj28.

Population Vulnerability Analysis, Spatial Social Science and GIS

LEAD INVESTIGATOR
Susan Cutter

RESEARCH QUESTION
As opposed to physical vulnerabilities, how do we measure the social vulnerability of hazards at a county level across the United States?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
Social vulnerability is defined as the social, economic, demographic and housing characteristics that influence a community’s ability to respond to, cope with, recover from and adapt to large-scale hazards. START researchers implemented the Social Vulnerability Index (SoVI), which synthesizes 42 socioeconomic and environment data variables. Statistical analysis revealed the 11 most significant components, each of which was integrated into an index measure that represents the social vulnerability for the county. Social vulnerability varies greatly even within individual states. The factors most frequently associated with high social vulnerability are urban development, racial and ethnic diversity and low socioeconomic status. Conversely, factors most frequently associated with low social vulnerability are affluence, homogenous white population and a youthful population.

For more information on this research, visit: www.start.umd.edu/AR09/proj29.

Public Protective Action Response to Warnings

LEAD INVESTIGATOR
Dennis S. Mileti

RESEARCH QUESTION
What are the likely factors that will direct how the public reacts to a warning of a major attack, regarding community evacuation, sheltering in place and building occupant evacuation?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
By analyzing the published research record and synthesizing the theories and knowledge on public protective action-taking in communities and buildings, useful and accessible products that bridge the gap between research and practice were developed for the homeland security community. Generalizations about how to manage response action-taking include: The content of the public warning that is distributed plays a key role in determining what actions the public does and does not take, as do warning message repetition over numerous and diverse channels of communication, and the availability of visual cues that support what is said in the warning message. A summary of the essential elements to include in a warning has been produced as well as a warning message template for writing public warning messages based on research evidence.

For more information on this research, visit: www.start.umd.edu/RR09/proj30.

Risk Perceptions, Trust and Response to Uncertainty in Risk Communications in Different Populations

LEAD INVESTIGATOR
Elaine Vaughan

RESEARCH QUESTION
What are the risk reactions among diverse social groups for an evolving situation of threat?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
The project focused on preparedness and resilience with respect to homeland security threats within lower-income communities and other groups residing in densely populated, culturally diverse and potentially vulnerable urban areas. It is based on empirical evidence collected through focus groups and an analysis of changing risk communications during the 2001 anthrax episode. Preliminary findings indicate that during early stages of terrorism incidents, under many circumstances, individuals can accept that there may be uncertainty in risk estimates. However, trust in leaders is fragile and is threatened if communications ignore uncertainty, commit certain errors or fail to reference important “protected” cultural values (e.g., fairness). For example, among some individuals in vulnerable communities, “false negative” communication errors (premature reassurances) seem to be more damaging to long-term credibility than “false positives” (warnings that never translate into predicted events). This is significant because preliminary analyses of initial crisis communications surrounding the 2001 anthrax attacks revealed a tendency to minimize uncertainty, to prematurely suggest insignificant risk without adequate evidence, and to overlook value concerns of potentially affected populations. Other preliminary focus group findings suggest cultural differences in using a “precautionary principle” to decide whether to comply with homeland security recommendations.

For more information on this research, visit: www.start.umd.edu/RR09/proj31.

School-Based Preparedness for All Hazards Including Terrorist Threats

LEAD INVESTIGATORS
Terence Thornberry and
Sabrina Arredondo Mattson

RESEARCH QUESTION
What insights can be gleaned into the levels of preparedness for an emergency, including a terrorist threat, in U.S. primary and secondary schools?

METHODOLOGY AND CURRENT RESEARCH FINDINGS
A Web-based survey was administered to a sample of 2,800 primary and secondary school districts around the country. Consistent with recent research on the preparedness of schools for an emergency, this study found that school and school-district administrators are most prepared for an emergency when it comes to having an emergency crisis plan. Specifically, school administrators reported having higher scores on measures in preparedness than on measures in prevention/mitigation, response and recovery. Twenty-six percent of school administrators and 21 percent of district administrators reported their plans did not include planning for terrorist threats (such as chemical, biological, radiological, nuclear and explosive incidents). Half of school administrators and 30 percent of district administrators reported their plans did not include planning for a pandemic. Qualitative results suggest that obstacles to school preparedness included financial resources, training, time and, for some districts, their isolated rural locations.

For more information on this research, visit: www.start.umd.edu/RR09/proj32.

Ongoing Research Projects

All projects funded by Office of University Programs, Science and Technology Directorate, U.S. Department of Homeland Security, unless otherwise noted.

CROSS-CUTTING DATA COLLECTION AND ANALYSIS

Ecology of Terrorist Organizations

Funded by Human/Social Dynamics Program, National Science Foundation

LEAD INVESTIGATORS Jonathan Wilkenfeld, Victor Asal, Edward Crenshaw, Gary LaFree and V.S. Subrahmanian

Global Terrorism Database

LEAD INVESTIGATORS Gary LaFree and Laura Dugan

Integration of U.S. Security Data on Terrorism and Extremism

Funded by Human Factors/Behavioral Sciences Division, Science and Technology Directorate, U.S. Department of Homeland Security

LEAD INVESTIGATORS Gary LaFree, Brent Smith, Joshua D. Freilich and Steven Chermak

Turning to Terrorism: Ethnic, Religious and Extremist Organizations

LEAD INVESTIGATORS Jonathan Wilkenfeld and Victor Asal

RADICALIZATION

Radicalization Processes in the United States

Homegrown Radicalization and the Role of Social Networks and Social Inclusiveness

LEAD INVESTIGATOR Paul Harwood

Patterns of Political Radicalization Within the United States

LEAD INVESTIGATOR Donatella della Porta

Task Force on Indicators of Radicalization

Funded by Human Factors/Behavioral Sciences Division, Science and Technology Directorate, U.S. Department of Homeland Security

LEAD INVESTIGATOR Shira Fishman

Tracking Sympathy and Support of Muslims for Terrorism in the United States

Funded by Human Factors/Behavioral Sciences Division, Science and Technology Directorate, U.S. Department of Homeland Security

LEAD INVESTIGATOR Clark McCauley

Comparative Studies of Radicalization

Cell Groups and Individual Radicalization in Indonesia, United Kingdom and the United States

LEAD INVESTIGATOR Douglas McLeod

Islamic Radicalization in Europe and North America: Parallels and Divergence

Funded by International Programs, Science and Technology Directorate, U.S. Department of Homeland Security

LEAD INVESTIGATORS Gary Ackerman, Clark McCauley, Magnus Ranstorp and Peter Neumann

Radicalizing the Poor: Understanding the Influence of Service Provision on Popular Support for and Participation in Violent Political Groups

LEAD INVESTIGATOR Shawn Flanigan

International Radicalization Processes

European Converts to Islam: An Evolving Threat?

LEAD INVESTIGATOR Emmanuel Karagiannis

Guerilla Insurgency: The Springboard to Terrorism?

LEAD INVESTIGATORS Paul Huth and Mark Lichbach

Martyrs Without Borders: Iraq's Foreign Fighters and the Third Generation of Global Jihad

LEAD INVESTIGATOR Mohammed Hafez

Measuring Political Radicalization: Diaspora Support for Terrorism Among Ottawa's Lebanese Muslim Community

LEAD INVESTIGATORS Clark McCauley and Christian Leuprecht

Tracking Sympathy and Support of Muslims for Terrorism in Muslim Countries and in the United Kingdom

LEAD INVESTIGATOR Clark McCauley

TERRORIST OPERATIONS AND INTERVENTIONS

Counterterrorism Strategies

Assessing the Effectiveness of Current Deradicalization Initiatives and Identifying Implications for the Development of U.S.-Based Initiatives in Multiple Settings

Funded by Human Factors/Behavioral Sciences Division, Science and Technology Directorate, U.S. Department of Homeland Security

LEAD INVESTIGATOR John Horgan

Countering Jihadist Ideology Among Detainees: The Effects and Effectiveness of Deradicalization Programs

LEAD INVESTIGATOR Arie Kruglanski

Dealing With the Devil: When Bargaining With Terrorists Works

LEAD INVESTIGATORS Laura Dugan and Erica Chenoweth

Global Nuclear Detection Architecture: Combating Nuclear Terrorism in South Asia

LEAD INVESTIGATORS Sharad Joshi and Jeffrey Bale

Police Responses to Terrorism and Impacts on Communities:**Lessons from the Israeli Police**

LEAD INVESTIGATOR David Weisburd

Punishing Terrorism: Examining the Multiple Stages of Federal Punishment Across Political Contexts

LEAD INVESTIGATOR Brian Johnson

Using Global Terrorism Data to Model Counterterrorism Policies in Sri Lanka

LEAD INVESTIGATORS Gary LaFree and Sue-Ming Yang

Measuring Counterterrorism Efficacy**Assessing Success and Failure in Terrorism and Counterterrorism:****Development of Metrics on the Global War on Terror and the Global Jihad**

LEAD INVESTIGATOR Alex P. Schmid

Effectiveness of Counterterrorism Strategies

LEAD INVESTIGATOR Martha Crenshaw

Impact of Israeli Counterterrorism Interventions on Rate and Intensity of Terrorist Activity: Hazard Modeling and Time Series Approaches*Funded by International Programs, Science and Technology Directorate, U.S. Department of Homeland Security*

LEAD INVESTIGATOR Arie Kruglanski

Measuring Intervention Success in Terrorist Activities

LEAD INVESTIGATOR Brent Smith

FACETS OF COMMUNITY RESILIENCE**Civil Society and Community Resilience****Building Community Resilience Through Public Involvement: Extended Community Assessment of Resilience Tool (CART-E)**

LEAD INVESTIGATOR Betty Pfefferbaum

Muslim Community Integration: Journey Into America*Funded by Human Factors/Behavioral Sciences Division, Science and Technology Directorate, U.S. Department of Homeland Security*

LEAD INVESTIGATOR Akbar Ahmed

Organizational Factors in the Successful Application of "Community Engagement" Principles for Bioterrorism Preparedness

LEAD INVESTIGATOR Monica Schoch-Spana

The Role for State Governments in Community Resilience

LEAD INVESTIGATORS Ann Bowman and Mark Tompkins

Vulnerability and Impact**Cross-Mission Area Preparedness for Catastrophic Events***Funded by the Office of Planning, FEMA, U.S. Department of Homeland Security*

LEAD INVESTIGATORS Dennis Mileti, Monica-Schoch Spana, Hamilton Bean and Paul Harwood

Domestic Weapons of Mass Destruction: Potential Populations at Risk from U.S. Chemical Facilities Releases

LEAD INVESTIGATOR Susan Cutter

Quantitative Index of the Public Health Impacts of Terrorism

LEAD INVESTIGATOR Fran Norris

Terrorists' Operational Decisions**Anatomizing the Behavior of Radiological and Nuclear Non-State Adversaries**

LEAD INVESTIGATOR Gary Ackerman

Behavioral Assessments Based on Automated Text Analyses

LEAD INVESTIGATOR James Pennebaker

Big, Allied, Dangerous and Charitable?

LEAD INVESTIGATORS Victor Asal and R. Karl Rethemeyer

Empirical Analyses of IED Attacks*Funded by Human Factors/Behavioral Sciences Division, Science and Technology Directorate, U.S. Department of Homeland Security*

LEAD INVESTIGATOR Gary LaFree and Richard Legault

Key Dimensions in Understanding Terrorist Bomb Attacks*Funded by Human Factors/Behavioral Sciences Division, Science and Technology Directorate, U.S. Department of Homeland Security*

LEAD INVESTIGATOR Margaret Wilson

Social Determinants of Terrorist Organizations' Resilience in Latin America*Funded by International Programs, Science and Technology Directorate, U.S. Department of Homeland Security*

LEAD INVESTIGATOR Jóhanna Birnir

Terrorism and Violence in Colombia

LEAD INVESTIGATOR Enrique Desmond Arias

Threat Assessment of Terrorist and Extremist Organizations in Indonesia, the Philippines and Thailand*Funded by International Programs, Science and Technology Directorate, U.S. Department of Homeland Security*

LEAD INVESTIGATORS Gary LaFree and Lorraine Mazerolle

Understanding and Combating Mass Casualty Terrorism

LEAD INVESTIGATORS Gary Ackerman and Victor Asal

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Through curriculum development, scholarship and fellowship programs and intensive research training, START trains and mentors the next generation of terrorism scholars and analysts.

Pre- and Postdoctoral Terrorism Research Awards

START's Pre- and Postdoctoral Terrorism Research Award Program funds 10 to 20 graduate students and junior scholars per year. Since 2005, the Terrorism Research Awards have supported 73 advanced graduate students and junior scholars. Past topics have included terrorist groups' provision of social services to local communities; reactions to policy as motivation for support of terrorist groups; local-level intelligence operations in major cities; and terrorist group weapons procurement.

Undergraduate Research Program

START's Undergraduate Research Program (URP) funds five to 10 undergraduate students per year to participate in faculty-led research projects while conducting complementary independent research. The 35 students supported by URP funds have studied topics including risk communication during homeland security crises; geographic profiling of crimes committed by domestic far-right extremist groups; state police perceptions of threats from terrorist and extremist groups; and the role of personal experiences of social identity in individual support for terrorism.

Graduate Certificate in Terrorism Analysis

In 2010, START will launch an online, open-enrollment graduate certificate in terrorism analysis at the University of Maryland. The program will provide participants with advanced education on the causes, dynamics and impacts of international and domestic terrorism. Participants will also develop the methodological skills necessary to pursue advanced research on and analysis of terrorism. The program consists of four required courses:

- Motivations and Intents of Terrorists and Terrorist Groups;
- Societal Impacts of and Responses to Terrorism;
- Development of Counterterrorism Policy and Programs; and
- Research Methods in Terrorism and Counterterrorism Studies.

The program can be completed in 12 months. For more information, please see: www.start.umd.edu/start/education/graduate_certificate.

Undergraduate Minor in Terrorism Studies

START also offers an undergraduate minor in terrorism studies at the University of Maryland. In this cross-disciplinary program, students enroll in a sequence of courses, with the objectives of developing:

- a comprehensive understanding of the theories explaining the formation of terrorist groups and the motivations behind terrorist behavior;
- a comprehensive understanding of the impact of terrorism on groups and individuals;
- firsthand experience working in the homeland security community; and
- a capacity to conduct research on terrorism using a range of analytical tools and research methods.

Students also have the opportunity to participate in research assistantships on START-funded projects, special courses related to the study of terrorism and a START-run study abroad program focusing on Western European perspectives on terrorism and counterterrorism.

Career Development Program

START's Career Development Program offers funding, academic mentoring and professional development opportunities for University of Maryland students with strong records of academic achievement and demonstrated commitment to the field of homeland security.

Curriculum Materials on Terrorism and Responses to Terrorism

During the 2009-10 academic year, START will launch a collection of curriculum materials based on major START research projects. Sponsored by START's new Curriculum Development Grant Program, modules in development include:

- Online Simulation Modeled on November 2008 Mumbai Attacks;
- Modular Approach to Radicalization and Terrorist Motivations;
- Engaging and Countering the Social and Cultural Mechanisms Used by Organizations to Motivate Suicide Attackers; and
- Risk Management and Analytic Techniques.

Modules will be available through START headquarters and will be included in the START Online Syllabi Repository: www.start.umd.edu/start/education/syllabi.



Terrorism and its various causes, processes and effects on society are likely to remain a prominent security concern. The best responses to this threat are those driven by a clear understanding of these phenomena, an understanding that must be based upon sound scientific research.

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