Science & Technology Directorate

National Consortium for the Study of Terrorism and Responses to Terrorism (START)

COE S&T Review
March 2014

Gary LaFree
START Director
Washington, D.C.
START Overview

COE Description

- **Center Mission Statement**: To advance science based knowledge about the human causes and consequences of terrorism as a leading resource for homeland security policymakers and practitioners.

- **Vision**: START will provide homeland security policy makers and practitioners with the highest quality, data-driven research findings on the human causes and consequences of terrorism in an effort to ensure that homeland security policies and operations reflect these understandings about human behavior.

- **Lead Institution**: University of Maryland

Research Theme Areas

- **Role of Social, Behavioral, Cultural and Economic (SBCE) factors on Radicalization and Violent Extremism**: Develop an etiology of causes of radicalization and violent extremism that details the unique and shared influences of SBCE factors.

- **Understanding and Countering Terrorism in the US**: Examine the emergence & operations of domestic terrorist actors and extremists and their interaction with law enforcement strategies, community initiatives, and government policies.

- **Adversary Modeling and Methods**: Initiate strategic partnerships to enhance the modeling of adaptive behavior, with emphasis on models validated with empirical data.

2013 by the numbers

- 23 people began Graduate Certificate
- 36 students enrolled in the minor
- 265 internships completed
- 880 government agencies and offices visiting website
- 16,000 people enrolled in MOOC
- 27.2 million page views on the website
- 3.5 million visits to website
- 3,800 downloads of the GTD

History and Funding

- Established in 2005
- START has received the following funds through OUP vehicles:
  - $31.5M in base financial assistance funding from OUP
  - $16.4M in financial assistance funding from other sources
  - $3.5M in contract funding under the Basic Ordering Agreement

- Total: ~$60.4M in funded research to date

Nearly $7.4 million in sponsored research in FY 2014
## START Research Overview

### Research Theme Areas (OUP)
- Role of Social, Behavioral, Cultural and Economic (SBCE) factors on Radicalization and Violent Extremism
- Understanding and Countering Terrorism in the US
- Adversary Modeling and Methods

### Research Theme Areas (non-OUP)
- Unconventional Weapons and Technology
- Resilience and Risk Communication

### Expected Uses
- Threat Assessments
- Capabilities Assessments
- Resource allocation
- Data Visualization Platforms
- Substantive and Methods Training for Intelligence Community and Law Enforcement Community
- Undergraduate Minor and New CVE Course
- Graduate Level Training

### Customers
- DHS: I&A; USSS; FEMA; Policy; DNDO; USCG; FLETC; USCIS; CRCL; NPPD/OIP; NPPD/ FPS
- State and Regional Fusion Centers
- National Counterterrorism Center (NCTC)
- State/Local Homeland Security and Emergency Management Offices
- Federal Bureau of Investigation
- U.S. Attorneys’ Office
- Department of State
- Department of Defense
Supporting Countering Violent Extremism (CVE) Efforts Through Resources and Training (CVE R&T)

**Description**
- Leverage START’s research agenda to educate the current and next generation of counterterrorism professionals

**Impact & Relevance**
- 16,000 students enrolled in START’s MOOC
- Graduate Certificate enrollment nearly doubled
- New Undergraduate Course: Innovation and CVE
  - Dept of State CSCC interest
  - Hedayah Center interest
- Sole provider of CVE instruction to the FBI nationally
- Informed a grassroots handbook written by MPAC to help Muslim communities engage in CVE

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- Federal Bureau of Investigation
- U.S. Attorneys’ Office
- Department of State
- Department of Defense
- Joint Special Operations University

Link to the introductory MOOC Video:
http://www.youtube.com/watch?v=JJkrdPchAKg
### START Education Overview

#### Description
- START's educational programs and initiatives aim to provide students the training and support they need to develop the skills and expertise necessary to become the next generation of terrorism analysts and scholars.

#### Goals
- Produce traditional and online courses to reach a broad audience, K-12 through executive level
- Introduce practical, analytical skills to current and future contributors to the homeland security enterprise
- Provide research training and support opportunities for students

### Workforce Development
- **Certificates or degree programs offered:** Global Terrorism Minor (undergraduate); Graduate Certificate in Terrorism Analysis
- **Courses developed:** States of Emergency (UG); CVE (UG); Oral Comm. for National Security Careers (UG)
- **Research areas of COE-supported students:** Cyber Security (3); Emerging Global Security Issues (6)
- **Student fellowships offered:** Undergraduate Research Program (2); Terrorism Research Program (10); Emerging Global Security Issues Program (6); Cyber Security Fellows (3); Diversifying Security Studies (8)
- **Type of COE-supported students:** Undergraduate, Graduate Certificate, PhD

### Professional Development
- **Professionals attending continuing education or graduate education programming:** [29 students, Spring 2014]
- **Adjunct faculty from government or industry working with students:**
  - U.S. Department of State
  - Maryland Cyber Security Center
  - Naval Research Laboratories
- **Other experiential student education:**
  - Emerging Global Security Issues – individual two-year research projects for 6 students
  - Cybersecurity Fellowship – student-centered effort to develop multi-week, online, cyber incident simulation
  - Short-term study abroad program in collaboration with Macquarie University, Sydney, Australia

### Collaborations/Partners
- **Adjunct faculty from government or industry working with students:**
  - U.S. Department of State
  - Maryland Cyber Security Center
  - Naval Research Laboratories

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### START Education – Graduate Certificate

#### Description
- Provides participants with advanced education on the causes, dynamics, and impacts of international and domestic terrorism. This program is appropriate for both academicians and practitioners and can be completed in 12 months.

#### Goals
- Design a flexible and accessible program for working professionals
- Teach relevant methodological skills necessary to pursue advanced research in terrorism studies
- Introduce terrorism-related data sets and methods of problem analysis

#### Impact & Relevance
- Educates individuals working within DHS and elsewhere in the homeland security enterprise
- Educates students and professionals seeking to gain employment within the homeland security enterprise
- Transitions START research and pedagogy to end users

#### Educational Capabilities & Opportunities

**DHS to COE**
- DHS can provide marketing assistance and/or endorsement of program—internally and to agency partners
- DHS can provide additional tuition assistance for employees enrolling in program (federal education loans are not available as the program is classified as “quarter-time”)

**COE to DHS**
- START has two primary educational capabilities which DHS can leverage:
  - Online education: START has a successful, fully online graduate program, a completed MOOC, and a number of online education success stories
  - Education in using large datasets: START has developed multiple successful methods for teaching students at varying levels how to work with large-N social science data sets for analytical and research purposes
## START Research and Education Successes

<table>
<thead>
<tr>
<th>Accomplishment</th>
<th>Impact/End Users</th>
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<tr>
<td><strong>Unconventional Weapons and Technology (UWT)</strong> - leveraging newly-developed GIS expertise and expertise in unconventional weapons and adversary modeling, UWT program took on $5.8 million in funding in 2013-2014.</td>
<td>The diverse applicability of UWT research for the creation of operational tools and the support of policy development is demonstrated by the number of projects (4) that address need for interagency stakeholders. <strong>In effect, the UWT Program at START has generated $5.8M funding for “E2E” projects outside of CSTAB.</strong></td>
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<tr>
<td><strong>START’s internship program flourishes</strong></td>
<td><strong>START graduated 265 interns in 2013, populating the professional CT community with better informed and trained employees, and the academic community with scholars that seek to address national security challenges.</strong></td>
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<td>- Summer 2012: 52 students from 20 institutions.</td>
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<td>- Spring 2013: 73 students from 14 institutions.</td>
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<td>- Summer 2013: 89 students from 32 institutions.</td>
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<td>- <strong>Spring 2014: 106 students from 20 institutions.</strong></td>
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<td><strong>Redesign of capstone research methods course for Graduate Certificate in Terrorism Analysis</strong></td>
<td>Student evaluation direct quotes: “I thought the data analysis modules were great! I enjoyed learning SPSS and would like to have learned more as it can be such a useful skill when applying for jobs;” “<strong>This program recently helped me get a new job with the government. The interviewer actually told me “this graduate certificate program is relevant and shows a continued commitment to learning;”</strong> “Currently I work for the <strong>__County Police Department and will be able to use the lessons learned in each of these course s in my professional career.</strong>”</td>
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<td><strong>Massive Open Online Course “Understanding Terrorism and the Terrorist Threat”</strong></td>
<td><strong>16,176 registered students</strong> (9,325 accessed the course material)</td>
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<td>76,671 unique course video watches</td>
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<td>23,297 quiz submissions</td>
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<td>1,135 unique contributors to the discussion forums</td>
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<td>3,474 posts</td>
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<td>37,179 discussion forum views</td>
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Supplemental Material
Education – Undergraduate Minor in Cybersecurity and Human Behavior

**Description**
- Currently in progress, the Undergraduate Minor in Cybersecurity and Human Behavior will educate the next generation of digital analysts, including students who plan to pursue graduate study related to cybersecurity and digital criminology/digital terrorism as well as employment in the fields of cybersecurity and homeland security within federal, state, local, non-profit, and/or corporate sectors.

**Goal**
- Develop interdisciplinary coursework utilizing new and emerging teaching technologies to educate students on human factors contributing to cybersecurity issues

**Impact & Relevance**
- Will educate undergraduates from any major on the following topics:
  - Motivations of individuals and groups who engage in deviant cyber behavior
  - Impacts of cyber attacks on individuals and groups
  - Policy implications of cyber attacks
  - Intelligence implications of cyber attacks
- Will prepare students to bridge gap between policy experts and technical experts in cybersecurity

**Outcomes/Results**
- START is currently searching for funding to support this program. START has conducted market research among the UMD student body to assess interest in the developing minor and found:
  - 56% of surveyed students (n=429) indicated interest in the program
  - 70% of surveyed students in START’s home college, the College of Behavioral and Social Sciences, indicated interest in the program
  - Student quote: “This minor has the potential to be another great addition to the University’s national security/counterterrorism arsenal.”
Education – Undergraduate Course: Innovation in Countering Violent Extremism (CVE)

**Description**
- This course draws on design thinking, an innovation process used to develop new solutions to complex problems, to allow students to explore CVE theories and strategies and to develop their own CVE project ideas. Students will conclude the semester by presenting a CVE program proposal to a panel of homeland and international security professionals.

**Goal**
- Develop an interdisciplinary course focusing on innovative, iterative, and collaborative processes to spur students to develop new ideas about approaching CVE

**Impact & Relevance**
- Will educate undergraduates from any major to develop the ability to:
  - Reach innovative and unconventional solutions to the CVE problem
  - Collaborate with other to research authentic community needs and test prototype ideas with community stakeholders related to CVE
  - Solve real-world challenges by critiquing existing CVE applications
- Will prepare students to enter the new and burgeoning field of CVE with background on the topic and new approaches to innovating on the subject

**Outcomes/Results**
- START has received a $10,000 grant from the University of Maryland's Academy for Innovation and Entrepreneurship to develop and teach the course.
- The course will begin in Fall 2014
- START hopes to turn the course into a recurring training program for working professionals internationally, as well as a traditional course for undergraduates
### Principal Partners

<table>
<thead>
<tr>
<th>University of Maryland, College Park, MD</th>
<th>Leads the multi-disciplinary university-based research &amp; education COE; Global and US terrorist activity; Ethnic/religious terrorism; Jihadist radicalization and de-radicalization; Counterterrorism; Risk perception</th>
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<tbody>
<tr>
<td>Bryn Mawr College</td>
<td>Radicalization processes; Extremism in the U.S</td>
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<tr>
<td>John Jay College, City University of NY*</td>
<td>Extremist violence; Organized crime; Intergroup relations</td>
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<tr>
<td>SUNY, Albany</td>
<td>Terrorist Group Dynamics</td>
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<tr>
<td>Stanford University</td>
<td>Failed and Foiled Plots; Counterterrorism</td>
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<tr>
<td>University of Oklahoma</td>
<td>Domestic terrorism; Effectiveness of counter measures</td>
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### Extended Partner Network

Non-University Partners: Institute for Economics and Peace, World Economic Forum, Palantir Technologies, Sandia National Laboratory,

University Partners: American University; Bilkent University; Emory University; George Mason University; Howard University*; Interdisciplinary Center Herzliya; Kings College London; Liverpool University; Marquette University; Michigan State University; Morehouse College*; North Carolina Central University*; Naval Postgraduate School; North Dakota State University; Rutgers University; University of Massachusetts-Lowell; SUNY Buffalo; University of Arizona; University of Arkansas; University of Illinois, Chicago; University of Nebraska, Omaha; University of Wisconsin; Villanova University; Wesleyan University

* Indicates MSI
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<tr>
<th>Placement</th>
<th>Internships</th>
<th>Jobs</th>
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<tr>
<td>DHS</td>
<td>CBP; Office of Public Affairs, USCIS Office of Policy and Strategy, USCIS Office of Security and Integrity, DEA Office of Global Enforcement, FEMA</td>
<td>Coast Guard, Science and Technology Directorate, Office of Intelligence and Analysis, Office of Infrastructure Protections, CBP, Office of Procurement</td>
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<tr>
<td>State and Local Government</td>
<td>Maryland State Police, Prince Georges County College Park Volunteer Fire Department; University of Maryland Department of Public Safety</td>
<td>Los Angeles Police Department, Michigan State Fusion Center, New York City Police Department, New York State Office of Homeland Security</td>
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<tr>
<td>Private Sector</td>
<td>Altamira, Carnegie Endowment for International Peace Time Warner Cable, Woodrow Wilson International Center for Scholars</td>
<td>START, University of Maryland, Rutgers University, University of Texas El Paso, James Martin Center of Nonproliferation; College of Charleston, University of Denver, Georgia State, George Mason University, UC at Irvine, San Diego State University</td>
</tr>
<tr>
<td>Academia</td>
<td>Czech National Library, National Defense University, University of Maryland Security Operations Center; START</td>
<td>START, University of Maryland, Rutgers University, University of Texas El Paso, James Martin Center of Nonproliferation; College of Charleston, University of Denver, Georgia State, George Mason University, UC at Irvine, San Diego State University</td>
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## START – Research Areas

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<tr>
<th>Research Area</th>
<th>Approaches</th>
<th>Expected Uses</th>
<th>Customers</th>
<th>COE Partners</th>
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</table>
| **1. Role of Social, Behavioral, Cultural and Economic (SBCE) Factors on Radicalization and Violent Extremism** | Data Analysis  
Interviews  
Surveys  
Simulations  
Mapping  
Frame Analysis  
Modeling  
Analysis of Databases  
Case Studies | Inform policy-makers with data-driven research findings to be used as a basis for developing effective strategies to anticipate and counteract terrorist threats.  
Incorporate research results into training curriculum | DHS: I&A; USSS; Policy; DNDO; FEMA; USCG; TSA; CBP; Fusion Centers; USCIS; CRCL: FLETC; NPPD/OIP; NPPD/FPS  
NCTC  
DOJ: FBI; USAO  
DoD  
DoS  
State/Local HS/EM Offices  
White House: National Security Staff | Penn State  
Stanford  
Emory  
Bryn Mawr College  
North Dakota State  
Kings College  
SUNY Albany  
Marquette  
Herzliya  
Univ Nebraska |
| **2. Understanding and Countering Terrorism in the US** | Case Studies  
Qualitative Comparative Analysis  
Analysis of Databases  
Experiments/Surveys  
Multivariate Statistics  
Automated Text/Content Analysis  
Grounded Theory Analysis | Contribute to a deeper understanding of the sources of domestic terrorism and the best ways for societies to counteract and mitigate terrorism’s effects.  
Incorporate research results into training curriculum | Bryn Mawr College  
John Jay College  
Univ Nebraska  
Wesleyan  
Stanford  
Univ Illinois  
Univ Arkansas  
Michigan State  
Univ Oklahoma | |
| **3. Adversary Modeling and Methods** | Database Collection and Coding  
Modeling | Continue to provide the world with the largest and most up-to-date open-source databases of international & domestic terrorist events | SUNY Albany  
SUNY Buffalo  
Univ Arizona  
GMU  
Rutgers | |
## START Highlights

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<tr>
<td>START releases a redesigned website</td>
<td>In 2013, the GTD raw data files were downloaded more than 3,800 times in 49 U.S. states and more than 100 countries. That's a 50 percent increase from downloads in 2012, and a 943 percent increase since 2009. There were 1,175,099 visits to GTD in 2013 (an increase of 24 percent over the previous year), yielding more than 16.3 million page views.</td>
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<td>START testifies before Congress on 2 occasions in less than twelve months citing three separate START research efforts.</td>
<td>House Homeland Security Committee and the House Armed Services Committee receive empirically-based research results to help inform policy.</td>
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<td>START conducts over 100 interviews post the Boston Marathon bombing.</td>
<td>START uses media engagement as a form of public education, and seeks to provide objective data and analysis to elevate the nature of the discussion of terrorism in the popular media.</td>
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<td>START partners with Palantir technology.</td>
<td>Over 125 organizations can now access Global Terrorism Data via Palantir on their workstations, providing end-users with another way to benefit from the world's largest unclassified data source on terrorism incidents.</td>
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