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Long-Term Effects of Law Enforcement's Post-9/11 Focus on Counterterrorism and Homeland Security

*Lois M. Davis • Michael Pollard • Kevin Ward
Jeremy M. Wilson • Danielle M. Varda • Lydia Hansell
Paul Steinberg*

Prepared for the National Institute of Justice



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Summary

Since the 9/11 terrorist attacks, the need for increased counterterrorism (CT) and homeland security (HS) efforts at the federal, state, and local levels has taken the spotlight in public safety efforts. A report by the U.S. Department of State on assessing and managing the terrorist threat explained that

The continued threat of terrorism has thrust domestic preparedness obligations to the very top of the law enforcement agenda. . . . [T]his capacity must be considered as much a staple of law enforcement operations as crime analysis, criminal intelligence, and crime prevention.” (U.S. Department of State, 2005)

In the immediate aftermath of 9/11, many law enforcement agencies (LEAs) who considered the terrorist threat to be high for their jurisdiction (especially LEAs in metropolitan areas or in jurisdictions with critical infrastructure) internally shifted resources or increased departmental spending to improve security for their department, to develop CT capabilities, and to improve their overall level of preparedness for incidents involving chemical, biological, radiological, nuclear, or explosive (CBRNE) incidents (Davis et al., 2004).

Today, CT and HS are an important part of LEAs’ agendas, especially for LEAs located in urban areas and/or in jurisdictions where the terrorism threat is considered to be high. In the years since 9/11, LEAs have continued to develop their CT and HS capabilities. At the same time, federal, state, and local governments have placed new demands on LEAs to participate in statewide or regional threat assessments, improve coordination on intelligence-sharing and other CT activi-

ties, participate in such major initiatives as the development of fusion centers and the implementation of the National Incident Management System (NIMS), and to demonstrate overall that their department and community are better prepared. LEAs are still developing comprehensive CT strategies and assessing what direction these plans should take. Incorporating CT activities into a department, though, represents a significant organizational change, one that requires departments to balance investments in traditional law enforcement priorities and those for CT and HS preparedness. Also, traditional funding for law enforcement has undergone some significant changes, particularly with the ending of such U.S. Department of Justice (DOJ) programs as the Community-Oriented Policing Services (COPS), which provided LEAs with funding to hire and reassign officers to community-policing activities,¹ and the consolidation of preparedness funding within the U.S. Department of Homeland Security (DHS). The resulting increased reliance on HS grants, which call for a regional, multi-jurisdictional approach to preparedness and the adoption of an all-crimes, all-hazards approach to information-sharing and intelligence analysis, has resulted in both advantages and challenges for LEAs. In addition, LEAs must consider how to integrate CT approaches with other key trends in policing practices, such as community policing, problem-oriented policing, or intelligence-led policing.

The purpose of this study is to provide an in-depth understanding of the long-term adjustments that large urban LEAs have made to accommodate the renewed focus on CT and HS, as well as the advantages and challenges associated with it. Specifically, this study addresses the following research questions:

- How have law enforcement's strategies evolved to meet departments' long-term CT and HS requirements? What long-term organizational adjustments were made? To what degree has this focus created new operational demands? What effect has the focus on CT and HS had on training and officer skills-sets needed?

¹ The COPS Universal Hiring Program began in 1994 and ended in 2004.

- How has law enforcement resourced its CT and HS activities? How has federal funding for these activities evolved, and what are some of the implications for LEAs?
- What advantages and challenges are associated with this new focus on CT and HS?
- What has been the evolution of fusion centers? What key trends are associated with LEAs' current approach to CT, including information-sharing, leveraging technology, and coordination activities?
- What are the current benefits associated with this long-term focus on CT and HS? What analytic framework can be used to assess the potential costs?

Approach

To address these questions, we developed a three-pronged approach that included a case study analysis, analysis of federal funding trends, and a framework for analyzing the costs associated with internally shifting departmental resources to focus on CT and HS.

The study relied primarily on in-depth case studies of five large urban LEAs—the Boston Police Department, the Houston Police Department, the Las Vegas Metropolitan Police Department, the Los Angeles County Sheriff's Department, and the Miami-Dade Police Department—purposefully selected to achieve representation of major urban departments in jurisdictions where the terrorist threat is considered to be high, as well as to achieve geographic variation and variation in the degree of the departments' experience with CT and HS. For each LEA, we conducted site visits and in-depth interviews with a range of personnel involved in developing or implementing CT or HS functions within their department, including departmental leadership, sworn and civilian personnel involved with fusion centers, CT units, HS bureaus or divisions, specialized response units, training bureaus, grants management, and administration. We conducted a qualitative analysis to identify similarities and differences among LEAs with respect to each of the research questions.

We also conducted an analysis of the major federal HS grant programs to examine how federal allocations have evolved over time, and we reviewed grant program requirements to put into context the key themes related to funding issues identified from the case study interviews. In addition, we developed a framework for assessing the potential costs associated with shifting law enforcement personnel from traditional policing functions to focus on CT and HS functions. To do so, we used a common analytic approach for estimating the potential financial costs stemming from reduced attention to routine crimes and then considered what this suggests in terms of shifting 1 percent of a department's sworn force from routine patrol functions to CT or HS functions.

Study Limitations

The study has the following limitations. We purposely selected a sample of five large LEAs in high-threat urban areas, which means that these results are generalizable only to other such urban areas. We primarily used a case study approach, which provides an in-depth understanding of the long-term adjustments LEAs have made to accommodate this new focus, as well as the advantages and challenges associated with it. It can also serve to identify hypotheses and issues for future research.

The views presented here are those of the LEAs in our case studies; they do not include the perspective of DHS or state departments of law enforcement or offices of homeland security. Therefore, the issues identified in this report represent only the perspective of local law enforcement.

Finally, as noted above, a key limitation of our study was that we were unable to obtain detailed data on the number and types of sworn personnel shifted to create new units or enhance existing organizational structures, and how these changes evolved over time to quantify costs at the departmental level.

Overall Findings

Law Enforcement's Counterterrorism Function Has Evolved

Pre-9/11, law enforcement's criminal intelligence focus was on specific types of crime, such as organized crime, white-collar crime, or gangs. In the aftermath of 9/11, law enforcement's focus has evolved to also include terrorist threats. Nine years after the 9/11 terrorist attacks, we see that LEA's information-sharing networks have evolved to include not only CT, but also the adoption of an all-crimes approach, with the goal of striking a balance between criminal intelligence and intelligence related to terrorist threats.

In terms of organizational units, whereas pre-9/11 a number of departments had specific crime-related units, such as organized crime units or narcotics units, following 9/11 many large urban LEAs stood up CT-specific units to gather and analyze terrorist-related information and intelligence. In addition, many state governments and some local governments established fusion centers, largely on their own initiative, to address gaps in information-sharing, terrorism, and law enforcement information-sharing by the federal government. A recent evolution was the replacement of Terrorism Early Warning Groups (TEWGs) with the fusion center model. Fusion centers importantly expanded the focus from CT-specific to an all-crimes, all-hazards approach to intelligence collection, information-sharing, and analysis. Most fusion centers are managed by the state police or by a state's HS bureau; only 20 percent are managed by large urban areas. Three of the five case study LEAs managed their region's fusion center. The LEAs' fusion centers were co-located with the city's or county's emergency operations center, thus allowing these jurisdictions to achieve economies of scale both in the physical investment and in co-locating staff tasked with both CT and for emergency planning and response.

In terms of network composition, whereas before 9/11 intelligence networks were specific to different types of crime (e.g., High-Intensity Drug Trafficking Areas [HIDTA]), following 9/11 the networks' foci expanded to include all crimes and hazards under the fusion center model. We identified several trends that underlie the shift

toward an all-crime, all-hazards approach to intelligence analysis and information-sharing.

First, as LEAs' CT efforts continue to move toward a fusion center model, large urban areas are starting to use information technology to organize virtually and to share information. An advantage of organizing virtually is that it allows more LEAs to participate in the information-sharing network and helps to reduce the resource commitments required to participate in a fusion center. A challenge is that a key goal of the "fusion" process is sharing and analyzing intelligence information to identify larger patterns and themes in crime trends—this is a dynamic process, but in a virtual organization there may be fewer face-to-face interactions and less informal information exchange. In addition, incentivizing participation is more difficult when LEA personnel are not co-located.

Second, the renewed focus on CT and HS has served as a catalyst to promote technology adoption (e.g., IT systems, software, camera systems) by fusion centers. An advantage is that this allows for better access to information, better linkage of network participants, and leveraging of technology to facilitate identifying the nexus between different types of criminal activity and potential terrorist-related activity. A challenge associated with the expanded use of technology is the need to also incorporate sustainability plans to address maintenance and replacement costs not covered by grant funding, as well as to address incompatible data record management systems among LEA network participants.

Third, LEAs have tapped into existing infrastructure and networks to help build their local intelligence functions. For example, the High Intensity Drug Trafficking Areas (HIDTA) network served as a model for one LEA to develop its CT information-sharing network. LEAs also have designated officers within a department to serve as liaisons between officers in the field and the CT unit or fusion center, and LEAs have expanded their community networks. An advantage of using or expanding existing networks is that the start-up costs associated with building on existing relationships tend to be lower. A challenge is that expanding or developing new networks takes time, energy, and resources. These transaction costs are often overlooked when gen-

erating new networks. Also, where existing networks are used, it is possible that the purposes of the network(s) may become diluted over time.

Fourth, fusion centers have helped centralize and formalize information exchange among LEAs and other network participants within a region. These centers also have enabled these networks to become more formally connected to the federal intelligence community. An advantage is that formalizing information exchange helps to make this process less dependent on personal relationships and contacts, which is especially important since officers often rotate out of CT positions into new roles. A challenge of formalizing information exchange is that fusion center participants may have different information needs and goals that must be recognized and negotiated.

Fifth, HS and the Urban Areas Security Initiative (UASI) funding focuses on enhancing regional preparedness, with a key goal being to encourage a regional, multi-jurisdictional approach and improve coordination among multiple stakeholders and different sizes of stakeholders within a region. As a result, the size of information-sharing networks has substantially increased, with one case study department's network expanding from agencies within two counties to include agencies from six counties. An advantage overall is that a focus on regional preparedness is helping to ensure regional cooperation across many specialties, increasing coordination of assets and resources across geographic boundaries, integrating policies and practices concerning preparedness, and, in terms of fusion centers, improving regional information-sharing and analytic capabilities. In addition, smaller LEAs participating in fusion center networks are realizing spillover benefits of greater access to information being housed by larger departments and opportunities to strengthen their relationships with larger LEAs in their region. A challenge associated with this trend is that larger LEAs tend to disproportionately contribute to these information-sharing networks—playing a coordination, analytic, and administrative role—whereas smaller LEAs tend to be more in an information-receiving mode. This has increased the coordination burden for large LEAs managing fusion centers. This trend also runs the risk of fusion centers becoming more focused on pushing out information versus there being

a two-way exchange; there is also the risk of less attention being paid to the actual “fusion” or analysis of intelligence information.

Organizational Adjustments, Personnel and Training Issues

To create CT and HS units, bureaus, or divisions and to staff fusion centers, the case study LEAs made a number of organizational adjustments.

All the departments stood up new HS bureaus or units and/or CT units. In the aftermath of 9/11, case study departments refocused their tactical intelligence units on CT. Eventually, these evolved into formal HS bureaus or divisions and CT units. For example, one department initially started a HS unit and, then later expanded this unit into a HS Bureau made up of 60–70 employees with an infrastructure protection, operations intelligence, and CT intelligence section. All of the departments also developed or enhanced existing specialized response teams to focus on CBRNE incidents.

Three of the five case study departments used UASI funding to develop or enhance a fusion center. The fusion centers grew out of preexisting units or structures within some of the departments. For example, one department's fusion center grew out of its original criminal intelligence unit; another department's fusion center evolved from its pre-9/11 tactical intelligence unit center; and the third department's fusion center had as its predecessor a terrorism early warning group.

To create CT and HS units and to staff the fusion centers, all five of the case study LEAs shifted sworn personnel internally from other activities to staff these new positions. This involved combining or refocusing existing units (e.g., criminal intelligence, organized crime units), shifting personnel to create or expand CT and HS units, and, in a number of cases, shifting personnel at the mid-to-upper levels within a department to these positions. Further, because HS funding does not cover the cost of hiring new personnel, the LEAs for the most part did not have the flexibility to hire new sworn personnel for these activities; grant funding only covered the hiring of civilian contract personnel or intelligence analysts.

It takes time for law enforcement personnel to develop the specialized expertise needed for CT and HS. For example, in addition

to learning about response to CBRNE incidents and becoming proficient in using NIMS, personnel must learn techniques for collecting and analyzing raw intelligence, evaluating source credibility, and other requirements specified in the fusion center and other related guidelines. In addition, they must develop their local contacts and networks and have a good understanding of the local situation in terms of threats, key partners, and local priorities. Developing such expertise requires a substantial upfront investment by departments to enable these officers to undertake the specialized training and time necessary to become knowledgeable experts in CT and HS. As one commander noted, it can take a mid-career officer at least two years to become effective in CT.

However, the typical career progression for sworn officers does not mesh well with this upfront investment. To advance in one's career, sworn officers typically promote to new jobs and into different types of positions every couple of years. As a result, the substantial investment in training, relationship-building, and knowledge-building can be lost right as these individuals become most effective in CT and HS positions. The mismatch between the typical career progression in law enforcement can also affect the ability of a department to internally recruit for these positions, with some sworn officers expressing concern that these positions could stall their advancement. Four of the departments commented that there was a critical need for a specialized career track in CT and HS.

HS grants, as discussed below, do providing funding for hiring civilian staff or contractors as intelligence analysts. There are pros and cons in having civilian analysts staff these positions. On the plus side, interviewees commented that civilian analysts tend to have statistical backgrounds, and, in some cases, intelligence backgrounds. Civilians also are more like to stay in these positions longer than a sworn officer, who typically rotates out of positions every couple of years to keep progressing in his or her career. On the downside, civilian analysts may not understand the law enforcement environment or their information needs. And when HS grants end, departments must find a way to continue to fund these positions.

A few interviewees took the view that sworn police officers were uniquely positioned to understand the intelligence needs of law enforcement. Yet, one CT commander observed that police officers do not necessarily make the best intelligence analysts. In his view, departments take the best investigators (e.g., from narcotics units) and try to turn them into analysts. However, to be a CT intelligence analyst requires a different set of expertise and mindset than what law enforcement officers typically are trained for. It requires specialized training of sworn personnel to become intelligence analysts, yet there is no specific career track for this specialized area. Another CT expert concluded that fusion centers or CT units optimally should be staffed with a combination of experienced officers, civilian intelligence analysts, and operators.

The focus of training has shifted from response to large-scale emergencies involving man-made or natural disasters to also include those involving terrorist threats, which for responders require training in weapons of mass destruction (WMD) awareness and response; the use of specialized personal protective equipment (PPE) and other technology, such as radiological detectors; the role of law enforcement in a CBRNE scenario; and incident management and response. In addition, the number of CT and HS training courses being offered has proliferated, making it challenging (and increasing search times) to identify the right training opportunities for a department and assess the quality of the training offered. The case study LEAs expressed concerns about the type and level of training offered by DHS. Some felt the training offered was too basic and wanted the flexibility to use grant funding for other training opportunities they felt better met their needs. Yet, training developed by a LEA or non-DHS approved training programs may not be covered by DHS grant funding if it does not meet specific requirements. As one departmental trainer stated,

There should be allowances for larger departments to create their own training and bring in specialized expertise. Good cops will meet the experts that offer training. . . . When we have identified particular training opportunities, we just can't get it approved

through DHS and ODP. It is very frustrating to send up training requests and have them denied.

Three of the five LEAs commented on the challenges of fitting HS training within the routine training that a department must undertake. The perception was that there were more training requirements now and that this meant, at times, having to cut optional training to make room for the new courses related to CT and HS. Training on NIMS was the most frequently cited example of HS training requirements. NIMS

provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment. (FEMA, n.d.-a)

NIMS training was cited by most interviewees as being valuable in terms of creating a common language by which agencies involved in a multi-agency response to major events could more effectively communicate and manage large-scale incidents. Developing proficiency in using NIMS was cited as an important benefit of the focus on HS preparedness and funding. However, NIMS also represented a substantial training requirement for departments where all sworn personnel must go through basic NIMS training and command staff must receive more advanced training. Depending on the size of a department, it could take 2–3 years for such departments to run all their personnel through NIMS training due to the need to fit NIMS training with other mandated training. Although HS grant funding provides support for NIMS training, several departments commented that overtime costs still were substantial to accommodate this requirement.

Funding Issues

A particularly important trend has been for HS grants to adopt a regional approach to HS preparedness and response. This is best illus-

trated by the Urban Area Security Initiative (UASI), which was a direct result of the Homeland Security Act of 2002 (P.L. 107-296) and is an important source of funding for fusion centers and LEAs' CT and HS preparedness activities. The UASI program is intended to assist participating jurisdictions in developing integrated regional systems for prevention, protection, response, and recovery. States are required to ensure that at least 25 percent of UASI-appropriated funds are dedicated toward law enforcement terrorism prevention-oriented planning, organization, training, exercise, and equipment activities, including those activities that support the development and operation of fusion centers. Importantly, although the amount of HS grant funding available has substantially increased since 9/11, the evolution of a regional focus on preparedness has meant that grant funding no longer goes directly to individual departments but instead to states and regions. Three of the case study departments commented that this trend has meant that law enforcement's needs and priorities must increasingly compete with those of multiple stakeholders within a region.

The award, distribution, and reimbursement process for HS grants (e.g., UASI and the State Homeland Security Program [SHSP]) are set up to go to individual states and then to the local or regional level. This system was cited by all of the case study LEAs as resulting in the management and disbursement of grants becoming much more complex following 9/11. Interviewee concerns included high administrative costs related to multiple layers of review and decisionmaking, multiple levels of review related to procurement processes, and more extensive grant administration and reporting requirements. As a result, some LEAs hired full-time grants managers and, in one case, developed an electronic grants management database to handle these requirements. HS grants management and report requirements, as well as match requirements, have had the unintended effect of some departments forgoing grant opportunities.

The U.S. Government Accountability Office (2005) found that, despite federal efforts to expedite the award of grant funds and the transfer of those funds to localities, some states and local jurisdictions could not expend the funds to purchase equipment or services until other, nonfederal requirements were met. Some state and local offi-

cials reported that their ability to spend grant funds was also complicated by various state and local legal and procurement requirements and approval processes, which could take months in some instances. Although DHS and states have made numerous efforts to address these problems, case study LEAs reported that, nine years after 9/11, state and city or county procurement processes were still at times slow, requiring multiple layers of review, and were not set up to support the purchase of specialized equipment needed by law enforcement.

UASI and SHSP grant funding can be used to hire new staff and/or contractor positions to serve as intelligence analysts (DHS, 2009c). Grant funding can also be used to hire personnel or to pay for overtime and backfill expenses *only* for individuals performing allowable planning, training, exercise, and equipment activities. HS grant funding *cannot* be used to support the hiring of personnel to fulfill traditional public safety duties. For departments, this has meant that these grant programs do not support the hiring of sworn personnel for CT or HS purposes. As noted above, in response, LEAs primarily have internally shifted sworn personnel from other positions to staff new CT or HS units or bureaus, and departments have relied on overtime to meet HS requirements (e.g., training or personnel staffing requirements). Four of the case study departments emphasized the need for funding to support hiring of sworn personnel for these positions.

A common theme heard from four case study LEAs was that, although HS grants were beneficial in enabling the purchase of specialized equipment, once a grant was over, the maintenance or replacement costs were no longer supported. This issue is not unique to HS grant programs, and in fact the grant guidelines direct applicants to develop sustainability plans. However, it raises the larger issue of federal versus state and local responsibility for HS preparedness. And the views of the case study LEAs were consistent with other studies of first responders. LaTourrette et al. (2003) examined this issue with a group of first responders. In that study, interviewees reported that the maintenance, repair, and replacement costs of PPE and other HS technology had to compete for funding with other departmental priorities; many interviewees wondered whether sufficient funding would be available for restocking these items after homeland security concerns lessen.

Lastly, UASI region definitions may be inconsistent with a state's existing mutual aid network and emergency management system—the mutual aid network law enforcement must use in the case of an emergency. The problems this can create, for example, include the fact that UASI recipients are required to conduct planning, training, and exercise programs with the partners that make up their Urban Area Working Group (UAWG). At the same time, these partners may differ from a LEA's operational area partners, which the state's emergency management system also requires LEAs to work with in planning, training, and conducting exercises. There is a need to reconcile UASI regional structures with individual states' emergency management systems.

Framework for Estimating the Potential Costs Associated with Counterterrorism and Homeland Security Efforts

Prior examinations of the costs (and benefits) of CT and HS expenditures typically have focused at the national or state level, on estimating the costs of averting terrorist incidents. To our knowledge, there have been no studies to evaluate the cost implications of CT and HS efforts at the local LEA level, where law enforcement plays a central role in HS preparedness and countering terrorist threats.

We developed an analytic framework for estimating some of the financial cost implications of CT and HS efforts at the local level. Specifically, we employed a common analytic approach for estimating some of the potential financial costs. As a consequence of LEAs internally restructuring to staff CT and HS units and fusion centers, a potential collateral cost is that routine police patrol presence may be reduced (depending on the number and types of sworn personnel that were reallocated), for instance, and that the reduced patrol presence may lead to increased crime—a possibility that has not been previously considered in the literature. For this analysis, we focused on crimes that the literature has shown to be more responsive to the size of the police force: aggravated assault, robbery, burglary, and motor vehicle theft. Because we were unable to obtain detailed data for each department on the number and types of personnel shifted over time, we instead estimated the number of additional new crimes that might result from a hypothetical 1 percent reduction in a LEA's police patrol

force as a result of reallocating staff to CT and HS functions, and then calculated the direct costs to the criminal justice system and the indirect costs to victims. We estimated this at the national level and then for the jurisdictions covered by the five case study LEAs.

We estimate that a 1 percent shift in police personnel away from police patrol functions to focus on CT and HS activities, nationally, would lead to additional annual crime costs of approximately \$363 million. At the local level, the annual crime costs ranged from \$1.54 million to \$6.2 million across the jurisdictions where the case study LEAs are located. To put these findings into context, we compared the annual cost of crime in each locality served by our case study LEAs with an economic measure of Gross Municipal Product (GMP)—the value of goods and services produced in a jurisdiction in a given year. This enabled us to compare the relative impact of a shift in police personnel from traditional public safety duties to CT and HS functions as a proportion of the total economic output from each locality. As a proportion of GMP, the range was very narrow, between 0.002 percent and 0.004 percent.

However, the costs associated with officers being assigned to routine patrol duties versus CT or HS duties is more complex than simply considering the effects of shifting personnel from routine patrol functions to CT and HS duties. A range of other factors need to be taken into account. For example, increased police presence for HS or CT purposes (e.g., specialized units at the ports or airports) also has had spillover effects in helping to reduce crime in general in these locations. Indeed, one department noted an 80 percent decrease in theft at their jurisdiction's international airport following an increase in the number of police personnel assigned to the airport for HS reasons. In addition, the all-crimes focus of fusion centers has been important, not only for CT, but also for improving information-sharing on crime in general. The case study LEAs reported that increased sharing of crime data improved their ability to identify cross-jurisdictional crime, which has led to the solving of more cases. In addition, there are other benefits that must be considered, such as improvements in coordination, incident management, and overall preparedness for responding to large-scale incidents in general.

Benefits Associated with the Long-Term Focus on Counterterrorism and Homeland Security

The case study LEAs identified a number of benefits associated with the long-term focus on CT and HS. Table S.1 provides a qualitative summary of some of the key benefits identified by interviewees.

Importantly, this new focus on CT and HS represented a cultural or paradigm shift for LEAs toward greater collaboration with other law enforcement agencies at the local, state, and federal levels, a shift that has resulted in improved information-sharing and regional coordination. NIMS was seen as an important advance in improving incident management for multi-agency response to major emergencies or disasters. Investments in training and equipment helped improved LEAs' capabilities to respond to CBRNE-related incidents. HS training is now part of LEAs' core curriculum.

The development and enhancement of fusion centers helped improve regional coordination on CT among multiple stakeholders and the development of closer working relationships among LEAs within a region. Improved information-sharing of criminal and terrorist threat information has not only benefited CT, but also routine crime-fighting efforts. Fusion centers have also helped to formalize the information-sharing process.

Changes and consolidation of HS grant funding at the federal level have led to LEAs establishing dedicated grants management positions to manage HS grants, which has resulted in capacity-building for grants administration in general within these departments. As a result, one might expect that the marginal costs of managing non-HS grants may also have been reduced. It also led to investments in grants management systems to enable departments to better track grant funds and meet reporting requirements.

The focus on CT and HS also has helped to prevent terrorist-related attacks. All of the case study LEAs cited examples of how their activities resulted in preventing attacks from being carried out, although it was difficult to quantify the number of attacks. For example, one LEA postulated that at least five significant terrorist-related incidents had been prevented; however, due to security concerns interviewees were reluctant to provide any detailed information about specific incidents.

Table S.1
Summary of Benefits Identified

Domain	Description
Overall cultural or paradigm shift	Long-term focus on CT and HS represents a cultural or paradigm shift toward greater collaboration among law enforcement at the local, state, and federal levels. Has resulted in more openness in the sharing of intelligence information.
NIMS training	Improved the incident management of large-scale events involving a multi-agency response.
Other CT and HS training and specialized training	<p>HS training department-wide has improved the cop-on-the-street's awareness of the threat of terrorism and what information to look for and how to report it.</p> <p>Improved departments' capabilities to respond to CBRNE-related incidents, including developing departmental proficiency in using NIMS. HS training is now part of departments' core curriculum.</p>
Relationship building with the local community	<p>Improved community outreach and relationship building with community groups.</p> <p>Assignment of special community liaison officers to do outreach with the community and private sector related to HS, and to serve as a point of contact for HS-related information.</p>
Specialized tactical response units	<p>Specialized tactical response units developed or enhanced response capabilities following 9/11 to address CBRNE and other terrorist-related incidents. In addition to developing local and regional capability, has also helped develop law enforcement response capabilities in general.</p> <p>Specialized response units particularly have benefited from HS grant funding in terms of additional investments in equipment and training.</p>
Grants management	Having dedicated grants management personnel to manage HS grants has resulted in capacity-building within LEAs to manage and administer grants. Also has led to investments in grants management systems.
Fusion centers	<p>Improved regional coordination and information-sharing about terrorist-related threats among local law enforcement agencies and other regional stakeholders.</p> <p>Adoption of an all-crimes, all-hazards approach to information-sharing and analysis has also had spillover benefits related to crime in general. Improved LEAs' abilities to address cross-jurisdictional crime and to develop analytic capabilities in general.</p> <p>Fusion centers have helped to routinize/formalize the diffusion process. In addition, by expanding the fusion centers' networks to include other LEAs in a region has led to improvements in strengthening relationships among agencies.</p>

Table S.1—Continued

Domain	Description
Equipment and technology	<p>HS funding allowed LEAs to purchase a range of equipment such as sensors, specialized bomb robots, etc. HS grant requirements helped standardize the equipment used by all first responders and enabled LEAs to purchase PPE to prepare for CBRNE attacks.</p> <p>LEAs are using HS funding to leverage technology (e.g., to improve communications and IT systems, to implement a camera network system in high crime areas, to improve virtual information-sharing within a fusion center’s network).</p>

It was also difficult for departments to estimate the magnitude of the events prevented. As noted above, CT activities also improved routine crime-fighting abilities and helped LEAs to connect the dots between crime and terrorist-related activity.

Future Challenges

In the wake of the 9/11 terrorist attacks, an important change has been the move toward regionalism: a consistent trend in both grant funding (e.g., UASI) and state and federal guidance to encourage the adoption of a regional approach to HS and preparedness. Enhancing regional preparedness has a number of advantages associated with it: increased coordination of assets and resources across geographic boundaries, developing regional cooperation across many specialties, integrating policies and practices concerning preparedness, and improving information-sharing and access to intelligence about terrorist threats and crime in general. Regionalization also has some associated challenges: the expansion in size of fusion center networks, how to ensure the equal participation of all participants, and how to ensure flexibility in HS grant programs to account for variation in local needs and capabilities. The case study LEAs reported that the funding mechanisms tended to be inflexible, requiring multiple levels of review and reporting, and that the goal of standardizing equipment and training among first responders had hampered their ability to purchase state-of-the-art equipment and to obtain the specialized training they felt to be most

important. Given this, DHS may want to consider ways to further streamline HS grant reporting and review mechanisms and how to best achieve more flexibility in grant mechanisms. Clearly, there remains a desire at the local level to have more of a law enforcement perspective in HS grant funding decisions.

As law enforcement is becoming more and more specialized, CT/HS is now seen as another specialty position opportunity. However, the traditional career progression of law enforcement personnel requires changing jobs every several years in order to keep advancing. Because of this, the investments that individuals make to develop the expertise, relationships, and networks important for CT and HS are often lost. There are two possible options for creating a specific career track for CT/HS:

1. Have intelligence analysts be career civilians with rotating sworn officer oversight. This could help provide a balance between civilian/sworn expertise in CT/HS positions.
2. Renegotiate CT and HS assignments so that they have indefinite or longer terms, thereby allowing sworn officers to remain in these types of specialized units for extended periods of time.

However, both options raise other potential issues. The creation of specific career track for CT or HS is a provocative option that is worth exploring further, but doing so must entail addressing the complex set of issues outlined in this report. The appropriate role of civilian analysts in CT and how to sustain these positions also warrants further examination.

Fusion centers and the adoption of an all-crimes, all-hazards approach to information-sharing clearly have improved regional information-sharing capacity and LEAs analytic capabilities. Yet, there are several remaining challenges. One is how to effectively engage all the participants in a regional fusion center and balance information-sharing with true analysis of threat/intelligence information. We found that the larger LEAs disproportionately contributed to these networks—playing a coordination, analytic, and administrative role—whereas smaller agencies tended to be more recipients of information.

Given this central role, DHS may want to consider what additional support needs—primarily personnel—the larger LEAs may require to continue to effectively operate these centers.

A second, important challenge is the question of how to sustain fusion centers. In the current economic downturn, states, counties, and cities are looking for ways to reduce costs and maintain basic policing services, and they are questioning what the investment in CT and HS has achieved for them. This has resulted in fusion centers looking increasingly to the federal government to provide increased, targeted support. This is an important and complex problem that must be addressed.

A third challenge involving fusion centers is measuring whether information-sharing and intelligence networking have improved. Such measurement should be a priority for future work in this area.

We were able to qualitatively assess the benefits associated with investing in CT and HS, with the case study LEAs' interviewees identifying a number of benefits. We were successful in developing an analytic framework to consider how to measure some of the associated costs of internally shifting sworn personnel to focus on CT and HS functions. However, a key limitation of our study was that we were unable to obtain detailed data on the number and types of sworn personnel shifted to create new units or enhance existing organizational structures, and how these changes evolved over time to quantify costs at the departmental level. Future research is needed to work with individual LEAs to help set up systems to capture the data necessary for these departments to be able to quantify the costs and benefits associated with these investments.

Finally, nine years after the 9/11 terrorist attacks and in this era of economic budget cuts, LEAs are finding it harder and harder to make the case for investing in CT and HS and the long-term benefit of such investments. As is true for prevention in general, it is difficult to quantify, for example, the magnitude and cost of terrorist-related incidents prevented or the value of the relationships and networks developed. This poses a conundrum for LEAs in demonstrating and gaining support for these activities, both within their department and from city and county officials who must make funding decisions about how to

spend limited policing resources. It also underscores the importance of buy-in from senior leadership to convey to the rest of the department why an investment in this area is critical to its overall mission. There is a fundamental question of how law enforcement agencies and state and local officials can know that their investments in CT and HS and in fusion centers are making a difference. The development of metrics at the department level could help to quantify the long-term costs and benefits of CT and HS.