MISSION

The Homeland Security Studies and Analysis Institute (HSSAI) is a federally funded research and development center (FFRDC) operated by Analytic Services Inc. on behalf of the Department of Homeland Security (DHS). HSSAI delivers independent, objective analysis and specialized technical expertise to help transform homeland security goals and objectives into meaningful strategies, operational requirements, and metrics. As an FFRDC, HSSAI:

- Provides analysis to address complex problems that most often directly informs key decisions
- Develops and preserves in-depth knowledge of DHS programs and operations
- Maintains continuity and currency in DHS-specific areas of expertise
- Serves as a trusted agent, safeguarding all sensitive information and avoiding conflicts of interest
- Responds quickly and effectively to DHS’s emerging needs
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From the Director

The threats and challenges we face in the homeland security mission space are extremely complex. As homeland security practitioners continue to face these challenges head on, we remain committed to building and reinforcing the high-end capabilities to earn the distinction as the go-to source for the important analysis that underpins key decisions. Working closely with our primary sponsor at the Department of Homeland Security (DHS), the Under Secretary for Science and Technology, our approach envisions a mutual commitment, in which the analyst and decision maker work closely together to create new insights.

Analytic Services Inc. will soon celebrate its 10th anniversary operating the Federally-Funded Research and Development Center (FFRDC) dedicated to homeland security studies and analysis. In 2004, we became the Department of Homeland Security’s first FFRDC, the Homeland Security Institute, and in 2009, we transitioned to become the next generation studies and analysis FFRDC, the Homeland Security Studies and Analysis Institute (HSSAI). I am deeply proud of the team we have assembled here. It is unique in the world, a pool of extremely talented analysts and Distinguished Visiting Fellows that is unsurpassed in my view.

Over the past year, HSSAI continued the important work of informing key decisions at DHS and elsewhere across the homeland security enterprise. I hope you find this annual report to be a useful overview of our accomplishments and capabilities focused on helping make the nation safer and more secure in the years ahead.

“HSSAI is committed to raising the bar, for ourselves and others, by delivering high-impact analysis to help the Department and others across the homeland security enterprise face the toughest challenges.”

Dr. Philip Anderson
Director, Homeland Security Studies and Analysis Institute
We deeply appreciate the special trust and confidence of the senior leaders and hardworking practitioners from across the homeland security enterprise that we have been so privileged to support over the past ten years.

Very Respectfully,

Dr. Philip Anderson
Director, Homeland Security Studies and Analysis Institute

Leadership Team

From left to right: Dr. Daniel Kaniewski, Sondra Mendelson, Mark Hanson, Dr. Margaret “Jo” Velardo, Richard Kohout, Dr. Philip Anderson, Steve Chabolla, Robert Tuohy, Dr. Howard Smith, Dr. Jennifer Jacobs, Dr. Matthew Fleming (not pictured: Wallace “Skip” Langbehn and George Thompson).
For the past 10 years, Analytic Services Inc. has been privileged to work with the Department of Homeland Security (DHS) as its studies and analysis Federally Funded Research and Development Center (FFRDC), beginning as the Homeland Security Institute in 2004, and continuing as the Homeland Security Studies and Analysis Institute (HSSAI) since 2009. In the current environment where homeland security missions are increasingly multifaceted and funding to address these missions is increasingly scarce, good analysis forms the foundation for good decision making. As the DHS studies and analysis FFRDC, HSSAI has built enduring capacity to support the Department and others across the homeland security enterprise long into the future. Our aim is to be relied upon as a trusted agent from the highest levels of leadership to action officers working at the program level.

HSSAI is uniquely equipped to help the Department tackle its most complex problems. We bring a unique combination of mission area expertise, innovation, and institutional memory to bear. We are free from any conflicts of interest and have no selfish interest in anything beyond service to the homeland security enterprise. During the past year, we generated significant impact within the homeland security mission space. We supported the Department as it implemented presidential directives and helped our
sponsors develop a deeper understanding of emerging issues, enabling them to function more effectively.

In this fiscally constrained environment, we have a unique value proposition as an FFRDC. We help DHS anticipate the future, bringing broad-based and long-standing capability to inform difficult decisions. We enable the Department to get more out of every dollar through thorough analysis of risk, programs, and acquisitions.

Through our work this year supporting the Quadrennial Homeland Security Review (QHSR), we had a front-row seat helping to shape key aspects of strategy that will guide programs for years to come. HSSAI seeks continuous improvement, developing innovative methodologies and approaches. As we improve, we raise the bar for ourselves and we continue to mature with a Department ever ready to address the challenges that lie ahead.
Mapping the problem space to the decision space helps ensure our analyses are timely, efficient, and responsive.
Today’s decision makers face difficult choices. With increasingly demanding missions, shrinking budgets, and decentralized operations, the need for smart decisions—backed by rigorous analysis—is greater than ever. HSSAI’s decision analytics capability builds on the 50-year history of our parent corporation, Analytic Services Inc., advising on key decisions at the Department of Defense.

We adapt traditional methods and add new tools to create innovative approaches tailored to DHS. Our decision analytics capability focuses not only on informing technical decisions, but also on the broader application of analysis to help engineer or reshape decision-making processes. HSSAI is an industry leader in applying robust analysis to critical decisions in the homeland security space, whether our sponsors are choosing how best to execute a mission, accommodate budget cuts while maintaining mission integrity, or balance competing mission priorities.

Decision analytics encompasses a host of different tools and methods aimed at providing decision makers with the logical, data-based foundations they need to make tough choices. Our approach includes traditional operations research as well as systems-thinking approaches designed for “soft” problems. We apply these tools to many kinds of assessments, including
analysis of alternatives (AoA), alternatives analysis (AA), cost-benefit analysis, business case analysis, and many others.

We tailor the tool to the decision-making context and the specifics of each situation, striving for the right level of accuracy while conserving time and avoiding undue expense. Framing problems within an appropriate system context of operational realities, technological capabilities, and programmatic constraints, we provide analysis that is defensible and directly applicable to departmental operations. We perform sensitivity analyses, when warranted, to understand how changes in assumptions and calculated values may affect the recommendations of the study.

Throughout the process, our leadership maintains close contact with the project sponsor and other critical stakeholders, identifying areas requiring their decision or action and ensuring that the analysis remains responsive to their needs. From the collaborative creation of a study plan guiding the work to the development of final products tailored to decision makers' needs, HSSAI is a trusted partner.

HSSAI demonstrated the successful application of decision analytics principles as early as 2010, in performing the Department’s first major AoA for the high-profile Secure Border Initiative Network (SBInet) program. That analysis informed key decisions by the DHS Secretary, met stringent timelines, and withstood subsequent scrutiny by the Government Accountability Office (GAO) and others.

Since that time, Analytic Services has institutionalized an in-house training program for decision analytics. We train our staff to apply methods and frameworks that will help DHS confront its greatest challenges. Through this training, HSSAI analysts make the most of their experience and formal education—whether in quantitative disciplines such as operations research, modeling, and cost analysis, or in the softer sciences such as...
as public administration or policy. HSSAI can also leverage the knowledge of hundreds of subject matter experts from throughout our parent corporation, from our extended network of partners, and across the homeland security community.

HSSAI is committed to sustaining and improving our decision analytics capability. We strive to remain the preferred organization to provide thorough analysis that applies to complex decisions. In performing work that influences these decisions, we stand side by side with program managers and decision makers to help DHS continually grow and mature.

**Highlights of Our Work in Decision Analytics**

Over the past three years, HSSAI worked with the Domestic Nuclear Detection Office (DNDO), helping find solutions to secure U.S. borders against radiological and nuclear materials. In a series of acquisition-focused tasks, we analyzed alternative ways to detect these materials in a variety of settings and modes of transportation—from screening at international rail ports of entry to installing radiation portal monitors at border crossings. Most importantly, HSSAI helped DNDO better define the threat, thus enhancing its ability to interpret and solve the key problems. Bounding the problem and solution space in this way helps DNDO more effectively execute its mission.

In 2013, HSSAI kicked off our most recent engagement with DNDO—an evaluation of alternative materiel and non-materiel solutions for a nonintrusive inspection program aimed at detecting radiological and nuclear material at ports of entry. With current radiation portal monitors nearing the end of their lifespan, DNDO asked HSSAI to conduct an AoA of potential replacement systems. Working together with DNDO, we developed a study plan that will help guide the analysis. The plan describes the technical approach, bounds the problem set,
and describes the nature and extent of stakeholder involvement. It will serve as a valuable tool for managing the task over the coming year.

Beyond AoAs, HSSAI also applies decision analytics techniques in other ways. For example, we helped the DHS Science and Technology Directorate in its work with both Customs and Border Protection (CBP) and the Federal Emergency Management Agency by defining and characterizing future uses for a rapid DNA testing device. Our team drew on decision analytics techniques to frame the basic approach for identifying operational benefits and determining potential return on investment.

Our work has not been limited to questions involving acquisition of technologies and systems. For several years, we have worked closely with CBP in its effort to integrate its diverse missions and prioritize potential activities to that end. We employed decision analytics techniques to help CBP make tough choices about priorities in an environment of fiscal constraint. Additionally, as part of a separate project, CBP leaders asked us to help them better understand their options for an Air and Marine Operations Center by identifying potential roles for such a facility.
Sharing Our Best Practices in Decision Analytics

HSSAI is committed not only to being the leader in applying sound analysis to support informed decision making, but also to helping others in the homeland security community do the same. In 2013, we crafted a document (Analysis of Alternatives Methodologies: Considerations for DHS Acquisition Analysis) that explains the major steps and key methods that are part of a sound AoA process. It summarizes DHS guidance, promotes a common understanding of the analysis process, identifies typical challenges and pitfalls, and provides recommendations on how to address such challenges. Our successful experience in applying decision analytics principles to this specific type of analysis provides the foundation for these recommendations.
Leveraging nearly 20 years’ experience, Steve Weiss has become one of HSSAI’s leaders in providing studies and analysis related to technology that helps protect our borders, as well as in further defining our decision analytics methodologies. Through his recent work, Steve has had the opportunity to apply his dissertation topic—radiation detection—to help the Domestic Nuclear Detection Office (DNDO) and Customs and Border Protection meet the challenge of interdicting illicit radioactive material. Steve applied his expertise to help these agencies evaluate alternatives to detect radiation at on-dock sea-to-rail transfer facilities and international rail ports. He demonstrated to DNDO that an analysis of threat objects embedded in the cargo stream can allow DHS to model technology performance in near-operational scenarios.

Steve understands that choosing the right solution begins at the very start—correctly framing the problem. His analysis has motivated DNDO to shift away from seeing the problem of radiation detection strictly as a technology issue and toward considering non-technological solutions that may better meet mission objectives. Steve’s teams provide creative new approaches to thinking about the underlying DHS mission challenges. Ultimately, through rigorous analysis, Steve’s teams have made recommendations that save the government time and money by linking solutions to mission value.
Given the talent of our analytic team, we are positioned to be one of the nation’s leading organizations to frame problems and deliver analyses of alternatives, particularly in the homeland security mission space."
Integrated Investment Life Cycle Management

HSSAI is a key partner for DHS as it prepares to make major changes to the way it links strategy, capabilities, and resources across the organization. Our decision analytics capability has influenced the reengineering of the decision processes across the Department as it implements these changes. From several different angles, HSSAI is helping to shape and execute the new Integrated Investment Life Cycle Management (IILCM) framework, required and introduced by the Secretary of Homeland Security in February 2013 as part of DHS Policy Directive 259-00. This directive made IILCM the designated framework for managing the budget and investment process, promoting the efficiency and effectiveness of department-wide strategic investment, and guiding resource allocation decisions.

The IILCM framework is an end-to-end process that requires strong governance, decision support, and data. It is composed of four phases, from the creation of strategy that defines priorities and goals, to the development of capabilities to execute that strategy, to the allocation of resources to fund those capabilities, to the oversight of the program overall. By systematically connecting strategy, required capabilities, and funding, IILCM ensures that the Department’s funding lines up with its strategic priorities to meet mission goals. The end result will be a new way of making investment decisions where strategy drives budget, working against the potential for budget to drive strategy.

The IILCM framework is currently being piloted in three focus areas—cybersecurity, biodefense, and screening and vetting—with each in a different stage of the IILCM process and representing a wide variety of mission applications. This brings together and connects many different organizations within DHS, which can create implementation challenges.
Analytic thinking is critical to IILCM; it must be applied during each phase of the process. As an FFRDC, HSSAI is uniquely positioned to provide the cadre of analysts and industry leadership for supporting decisions in the strategy and capabilities and requirements phases. Our background and vast experience in a wide range of decision analytics disciplines and methods provide us with the unique skills to provide this analytic support.

From the inception of the IILCM process, HSSAI played a major role by helping DHS take the first steps to refine, document, and implement the system. This analysis better described the process to facilitate shared understanding among the relevant stakeholders. In addition, the HSSAI team designed a process flow chart (page 15) to illustrate the way that the four process phases link to governance, decision support, and data, forming a robust end-to-end system. This chart underlies DHS’s communications for discussing the IILCM framework.

HSSAI is continuing to develop, refine, and finalize the IILCM process and its related endeavors, both at the conceptual level and through observation of the pilots. We are supporting the Science and Technology Directorate in its role as co-executive secretary of the capabilities and requirements phase by developing key analytic frameworks. We also work with the Office of Program Analysis and Evaluation to plan and execute technical workshops to identify the highest-priority gaps in the screening and vetting pilot and support the cyber pilot through our forward analysts deployed to the National Protection and Programs Directorate Office of Strategy and Policy. Finally, we are observing and reporting lessons learned to inform the creation of future guidance and management documents.
As we continually work hand-in-hand with the Department, we can draw on our institutional memory and insight into both the process and the pilots to help DHS understand and address IILCM’s many aspects and potential impediments. Our reach across the Department, combined with the expertise we have built in the areas of organizational management, policy, and strategic analysis, position us to support the Department as it moves forward.
Integrated Management of Strategic Investments and Resource Decisions

Process Flow Diagram

**Processes**
- Strategy
  - Defining priorities and approaches for meeting mission goals and objectives
- Capabilities and Requirements
  - Prioritizing capability improvements to meet mission objectives
- Programming and Budgeting
  - Portfolio allocation, affordability, and cross-portfolio trade space decisions
- Major Investment Oversight
  - Major acquisition and investment oversight

**Governance**
- Department Strategy Council (DSC)
  - Alternatives Analysis
  - Mission Area Analysis
  - Functional Analysis
  - Combinations Analysis
  - Budget Analysis
  - Program Performance Analysis

**Decision Support**
- Portfolio Teams
  - Cross-Departmental Analysis and Decision Support

**Data**
- **Inputs to DSC**:
  - White House and Congressional guidance
  - Threat assessments
  - Department-wide performance data
- **Disc Outputs**: QMTR Report; DHS Strategic Plans; Integrated Planning Guidance

- **Inputs to CRC**:
  - Strategy guidance
  - High-level systems descriptions
  - Existing capability investments and performance
- **CRC Outputs**: Prioritized list of capability gaps; Integrated set of cross-Departmental operational requirements; Identifications of high-level alternative solutions to fill gaps

- **Inputs to PRB**:
  - Strategic guidance
  - Capability-based assessment
  - Selected capability solutions
  - Resource allocation Plans
  - Capability documents
- **PRB Outputs**: Resource allocation decisions; affordability assessment; annual & capital budget; FYHSP; management & operational measures; annual performance report

- **Inputs to IRB**:
  - Program status reports
    - Actual program performance relative to pre-established metrics
    - Contributions to portfolio-level performance and mission goals
- **IRB Outputs**: Decision Memoranda

**Mission Area Analysis**
- Missions and goals
  - Department capability gaps

**Framing**
- **Decisions**:
  - Department aspirations and missions
  - Mission priorities, goals, and objectives
  - Common definitions of mission success
  - Choice among alternative strategic approaches

- **Missions and goals**
  - Integrated and prioritized capability list
  - Investment options (i.e., RAPs)

- **Investment Oversight Board(s) (IOB)**
  - Program plans and performance

**Process**
- Planning
- Programming
- Budgeting
- Execution

**Integrated Management of Strategic Investments and Resource Decisions**

**Integrated and Prioritized Capability List**

**Integrated and Prioritized Capability List**

**Prioritized List of Capability Gaps**

**Integrated Set of Cross-Departmental Operational Requirements**

**Identifications of High-Level Alternative Solutions to Fill Gaps**

**Department Strategy Council (DSC)**

**Program Review Board (PRB)**

**Investment Oversight Board(s) (IOB)**

**Mission Area Analysis**

**Functional Analysis**

**Alternatives Analysis**

**Budget Analysis**

**Program Performance Analysis**

**DHS Strategic Plans**

**Integrated Planning Guidance**

**QHMP Report**

**Strategic Plans**

**Integrated Planning Guidance**

**HSSAI**

**James Tourtellotte / CBP**

Working with DHS stakeholders, HSSAI analysts helped design an IILCM flow diagram, which illustrates how the complex system will be applied across four phases and in several key dimensions to coherently link strategy to programs. This chart has proven to be a useful tool for DHS, underpinning shared understanding of the IILCM process and allowing for both consistent communications and continual refinement.
“Over the next year, our work on IILCM will continue to provide opportunities for HSSAI to be a part of a high-priority, high-visibility effort that holds the potential for changing both the management and culture of the Department.”
FEATUERED ANALYST

Kelli Thompson

Principal Analyst, Policy and Program Analysis Division
PhD, Biophysics, John Hopkins University
MS, Applied Economics, Johns Hopkins University
BS, Biochemistry, Duquesne University
8.5 years of experience; 2 years at HSSAI

Kelli brings a distinctive combination of education and experience to HSSAI. Her education in both economics and biophysics, as well as her experience conducting operational analyses for DHS and the Department of Defense, made her well prepared to co-lead the HSSAI Integrated Investment Life Cycle Management (IILCM) effort. In this task, Kelli and her team helped DHS implement a department-wide management process to improve strategic investment and resource allocation decisions. Throughout this project, Kelli worked closely with all of the headquarters offices to help clarify individual roles and responsibilities and to identify opportunities to engage with components. This kind of stakeholder outreach and coordination is critical to the success of IILCM, which depends on breaking down the traditional stovepipes that frequently exist across the Department. IILCM’s goal is to foster a DHS culture where headquarters and the components work together to achieve strategic outcomes and promote efficiency.

Kelli also played a key role in developing the implementation guidance for the capabilities and requirements phase of IILCM. This phase assesses the performance of departmental capabilities and determines the courses of action to better enable DHS to achieve strategic outcomes and operational requirements.
Given our role as the Department’s Federally Funded Research and Development Center (FFRDC) for studies and analysis, our status as a trusted agent, and our institutional memory, we have an important responsibility not only to analyze current programs and operations, but to help DHS and its partners anticipate and prepare for the future. In 2013, building on our engagement in the nation’s first Quadrennial Homeland Security Review (QHSR), we helped shape the second QHSR. This important strategic effort, tying together emerging trends with current operations to set a direction for the nation’s homeland security posture, will guide activities across the Department.

We are also proud to help organizations—within and outside the Department—grow to meet challenges. This year, we continued our five-year engagement with the Federal Emergency Management Agency (FEMA) helping the organization develop the doctrine and guidance that allow it to function at a higher level when responding to disasters around the country. Additionally, we further developed our approach to prioritizing mission integration activities, which will continue to be valuable as DHS matures, ultimately bringing the Department together to better address future risks and challenges in a coordinated way.
Quadrennial Homeland Security Review

In 2013, HSSAI once again had the opportunity to work on the QHSR, the chief policy and strategy document released by DHS. A key goal of QHSR 2014 is to obtain a better understanding of homeland security strategic environment, both now and in the future, and to identify areas where the department must shift its strategies to address changes in that environment.

Based on our successful involvement with the first QHSR four years ago, the DHS Office of Strategy, Planning, Analysis and Risk (SPAR), within the Office of Policy, involved HSSAI in the second QHSR process. Our involvement spanned the preparatory phase through the execution phase and the decision phase. More than 30 analysts from across HSSAI worked closely on a daily basis with SPAR staff, both from HSSAI headquarters and at the SPAR offices. The task was designed to assist SPAR with numerous strategic and analytical efforts that would lead to a well-founded QHSR. The task team accomplished this by providing analytic insight to the core QHSR team, the study teams, and the outreach and engagement team.

As part of the preparatory phase, HSSAI analysts leveraged innovative analysis that helped SPAR understand and assess the homeland security strategic environment, as well as analysis that provided a baseline look at the department’s major undertakings since the previous QHSR. These base cases provided a sound foundation for assessing environmental, policy, and program changes in each of the five 2010 QHSR mission areas.

To bolster the execution phase, HSSAI analysts were embedded with each of SPAR’s three QHSR teams. The HSSAI analysts helped frame studies, conduct research and literature reviews, and identify relevant stakeholders. In addition, analysts working with the core team developed analytic studies addressing

**Key HSSAI QHSR Efforts:**
- System Mapping Pilot Initiative
- QHSR Mission Area Base Case Analyses
- Homeland Security Statistics Information Book
- Global Survey of Cyber Security Key Issues
- System Mapping Initiative (of homeland security threats)
- Quick Turn Research Support

**SHAPING THE FUTURE**

**RAISING THE BAR**
terrorism and cybersecurity that were used to inform the development of those sections in the QHSR.

The analysts embedded with the outreach and engagement team provided inventive ideas for the QHSR engagement plan and rollout strategy. They also helped identify imaginative approaches for engaging those outside the department to participate in the development process.

At one study team’s request, HSSAI analysts performed a unique system mapping of homeland security threats by merging five previously developed system maps: drug trafficking, human smuggling, counterfeit goods trade, terrorism, and illicit finance. This new “master map” enabled the team to uncover previously hidden relationships and dependencies between these threats and activities. From this, the study team was better able to conceptualize how different elements of the homeland security environment come together.

Based on the high-quality work provided by HSSAI analysts in the first two phases, SPAR requested that HSSAI continue providing integral support into the decision phase for the QHSR. Beyond that, HSSAI will continue on to work with SPAR on implementing the QHSR.

Overall, for the past year and a half, the HSSAI team has been highly involved in a program that shapes DHS’s long-term resource planning, strategic decision making, and policy priorities that are critical to improving the nation’s homeland security posture. The work completed for this massive undertaking has allowed HSSAI to shape the strategic direction that will guide key DHS policy initiatives for the next four years.
“Having the opportunity to work on the primary policy document released by DHS allowed me to see firsthand the immense impact that HSSAI analysts can have.”
FEATURED ANALYST

Joseph Kendall

Analyst, Policy and Program Analysis Division
MPS, Political Management,
George Washington University
BA, Political Science and Communication,
Virginia Tech
6 years of experience; 5 years at HSSAI

Joe’s master’s degree in political management provided him with a background in strategic communications that was extremely helpful to the HSSAI effort to identify and target relevant stakeholder groups and craft engaging materials for Quadrennial Homeland Security Review (QHSR) outreach. As a member of the engagement team, Joe worked alongside the QHSR study groups to ensure that wide-ranging perspectives and expertise informed the QHSR. Joe’s role ranged from designing the platforms for engaging stakeholders to developing outreach and engagement materials to analyzing their comments for incorporation into QHSR studies.

Joe and the HSSAI engagement team found that the most challenging part of this task was designing questions that were interesting, accessible, and tied to ongoing study group activities. Joe and the engagement team knew that outreach was about getting comprehensive stakeholder insight and incorporating it into the QHSR analyses. Given its strategic significance, the QHSR has a very broad audience. It was important to the outreach team that people from all parts of the stakeholder community understood what the QHSR is, how it affected the enterprise, and what it meant for them.
FEMA Doctrine

HSSAI is committed to helping organizations across DHS grow and develop as they anticipate the future. Our tasks supporting FEMA have provided us an unprecedented chance to shape the way that FEMA responds to disasters across the nation. We are working side-by-side with FEMA’s Response and Recovery Directorate as it builds a new, integrated base of doctrine and guidance to ensure consistent and high-impact operations that help meet its mission goals, as well as the needs of its partners and those affected by disasters. We helped FEMA mesh its fundamental principles and core beliefs with others’ viewpoints and best practices from across the agency to inform the new doctrine and guidance.

This experience allowed HSSAI to develop a repeatable methodology not only for doctrine development, but also for work group facilitation and management. Our signature processes move from initial, comprehensive literature reviews that identify the doctrine’s context, to production-leveraging working groups and focused interviews, to final editing and refinement of the doctrine.
FEATURED ANALYST

Neysha M. Alvarez

Senior Associate Analyst, Threat and Risk Analysis Division
BA, International Relations, Syracuse University
5 years of experience; 4 years at HSSAI

One of our promising junior analysts, Neysha began her career at HSSAI following an internship supported by the Department of Homeland Security’s Scholarship and Fellowship Program at HSSAI, where she conducted research on homegrown radicalization. She was able to draw on the experience she gained through Syracuse University’s Maxwell-in-Washington program to advance her work in public service and security affairs. Before coming to HSSAI, Neysha worked for the Transportation Security Administration as a transportation security officer in both Puerto Rico and New York, which taught her about transportation security operations and supplied her with a valuable perspective that she applies to tasks at HSSAI.

Neysha has been critical to the Federal Emergency Management Agency (FEMA) doctrine development effort, which provides long-term strategic support to FEMA in developing, refining, and enhancing FEMA’s base of response and recovery doctrine and guidance. While working on this task, she has had the opportunity to play many roles, ranging from doctrine analyst to deputy project lead. Emergency managers use the products of her team’s work on a day-to-day basis, as well as during major incidents such as Hurricane Sandy.
“HSSAI tasks have provided me with the chance to work with a diverse group of analysts, learning about different fields, gaining a variety of skill sets, and discovering new professional interests.”
Mission Integration

HSSAI has worked closely with U.S. Customs and Border Protection (CBP) since 2011, facilitating the organization’s unification by helping operationalize efforts to integrate its missions. To date, we have executed five tasks in support of CBP to help it prioritize resource allocation among its many potential mission integration activities, something critical in today’s constrained budget environment. Each task built on the research and knowledge gained during the previous task, allowing us to gain institutional memory, help CBP move down the road toward integration, and continue developing our expertise in a way that may help other organizations across DHS.

As part of the initial task, Defining Mission Integration, we conducted a review of public and private enterprises that tried to integrate missions across an entire institution, which led to the identification of characteristics shared by integrated organizations. As a result of the favorable response this task received, CBP asked HSSAI to analyze the then-current state of mission integration within CBP. Based on the study, HSSAI identified 37 recommended ways to improve integration between CBP’s many missions. In the most recent effort sponsored by CBP, HSSAI has helped CBP continue integrating its missions by supporting the implementation of some of our recommendations. As a result of HSSAI’s cumulative efforts, CBP better understands the potential for integrating its organization and has seen gains in organizational effectiveness and resource allocation efficiency.

After starting to study mission integration within CBP, we also determined that other organizations across the Department could benefit from the recommendations we made to CBP. As a core research project, we recognized the potential value of mission integration across the Department and created a methodology to evaluate, prioritize, and implement mission
integration activities. HSSAI analysts created a repeatable approach, applicable across DHS, to prioritize, organize, plan, and implement mission integration recommendations.

With institutional memory related not only to how this methodology works conceptually, but how it functions when implemented, HSSAI is in a position to help other institutions across the homeland security enterprise with similar studies and organizational improvements. Ultimately, mission integration can facilitate a high-functioning and integrated DHS that adeptly executes its myriad missions.
Project Responder

Responding to a large-scale catastrophic incident requires the coordination of personnel, equipment, communications, tactics, regulations, and priorities, as well as the sharing of information and intelligence among many agencies and entities. Gaps exist between what response agencies can currently do and what they feel is necessary for successful response to these incidents and it is beyond the ability of a single state or local response agency to provide enough resources to address those gaps. The federal government provides critical support when the state and local level cannot satisfy capability gaps or when investments in science and technology can provide value to responders throughout the country.

The purpose of Project Responder is to identify these gaps between the current capability of emergency response agencies and what they consider necessary to respond to large-scale incidents. Through analysis, a team prioritizes and analyzes these gaps to identify actionable recommendations that help guide development efforts at DHS, other government agencies, and private industry.

HSSAI has been involved in Project Responder since 2011. In 2013, HSSAI prioritized the top enduring and emerging capability needs and examined the state of science and technology, in close coordination with emergency responders and technologists from across the country. As a result of the trust placed in us by the DHS Science and Technology Directorate, HSSAI is delivering critical decision-making information in the form of technology roadmaps. These roadmaps will inform future acquisition or development endeavors and enable the directorate to prioritize its investment decisions and acquisition strategy for catastrophic incident response.
RAISING THE BAR

Leaning Forward to Enhance Our Impact

Through our Core Research Program, HSSAI engages in crosscutting, integrative work that addresses critical and strategic issues of importance to stakeholders across the homeland security enterprise. This program allows HSSAI to respond quickly to DHS’s needs, as well as build enduring capabilities. It enables HSSAI to develop foundational models and methods for identifying requirements, performance metrics, and measures of effectiveness. This section features examples of our Core Research Program projects in 2013, which included:

- ICE Investigative Analytic Support
- Improving Critical Infrastructure Cybersecurity and Resilience
- Resilient Social Networks
- Defining Criticality in a Networked World
- Measuring Security
ICE Investigative Analytic Support

The Immigration and Customs Enforcement (ICE) Investigative Analytic Support task team provided the ICE Office of Homeland Security Investigations (HSI) with a timely, resourceful, and independent analysis of human smuggling and trafficking activities. As part of this task, the team scrutinized illegal financial activities by transnational criminal organizations within various illicit markets and geographic areas across the United States. As human smuggling and trafficking activities are constantly occurring and evolving, this core effort allowed HSSAI to respond quickly to ICE HSI’s needs.

HSSAI’s analysis confirmed that transnational criminal organizations are involved not only in drug trafficking and money laundering, but in a vast array of criminal activities in the U.S. The team found that additional illicit activities include, among others, credit card and mortgage fraud, human smuggling and trafficking, and identity theft. The team identified the significant implications of these illicit activities for public safety in the United States, as well as for public and economic institutions. This analysis proved nearly immediately beneficial to ICE HSI, as it allowed them to more effectively address the activities of transnational criminal enterprises based out of various countries in the Americas.
Improving Critical Infrastructure
Cybersecurity and Resilience

Through Executive Order 13636 and Presidential Policy Directive 21, the White House called for DHS, the Department of the Treasury, and the Council of Economic Advisors to study the types of incentives that would encourage the owners and operators of the nation’s critical infrastructure to boost security and resilience. The DHS National Protection and Programs Directorate asked for HSSAI’s help in conducting its portion of this quick-turn research. As part of this undertaking, DHS asked HSSAI analysts to identify and review the academic literature related select incentive categories to ascertain their potential value for facilitating investment in security and resilience. Despite the incredibly tight timeline of just six weeks, the team was able to capture the critical and necessary information from more than 70 sources and deliver a literature review to DHS that described prevailing analytic and academic thought related to numerous incentives.

DHS incorporated the information contained in the HSSAI Incentives Literature Review into the DHS Incentives Study, which they submitted to the President of the United States. The effort also received recognition in a White House blog on “incentives to support adoption of the cybersecurity framework.” DHS had the confidence to trust HSSAI with this critically important work based our ability to quickly produce high-quality analysis for organizations at the highest levels.
FEATURED ANALYST

Leanna Leitnaker

*Analyst, Operations Analysis Division*
*MPP, George Mason University*
*BA, International and Cultural Studies and French, University of Tampa*
*5 years of experience; 3.5 years at HSSAI*

Through her experience studying transnational organized crime at George Mason University (GMU), Leanna’s learned how to analyze transnational criminal networks and money laundering schemes, knowledge that she has leveraged in her work at HSSAI. While at GMU, Leanna received a Terrorism, Transnational Crime and Corruption Center fellowship to do field research in Senegal on irregular migration trends, ultimately presenting her findings to the State Department and at a GMU-sponsored event. This experience instilled confidence in her to develop creative research designs that she uses at HSSAI.

Through her experience working on numerous tasks for Immigration and Customs Enforcement (ICE), Leanna has learned that dismantling transnational criminal groups operating across the United States requires strategic coordination among a variety of organizations. She and her team advised ICE by providing recommendations related to the ways coordinated cases and investigations are likely to make the greatest impact in dismantling the organizations. Through her research, Leanna found that it takes a network to fight a network—and in order to combat transnational criminal networks, we must seriously consider the impact that analysis, such as that provided by HSSAI, can have in the coordination of multi-jurisdictional criminal investigations.
“As organized criminal groups evolve and become more entrenched and sophisticated, it is imperative that U.S. authorities develop a deeper and more nuanced understanding of their illicit operations.”
Resilient Social Networks

Less than 24 hours after Superstorm Sandy made landfall in New Jersey on October 29, 2012, a small group of members from the Occupy Wall Street movement deployed to some of the region’s hardest-hit neighborhoods. Over the next couple of months, they recruited and mobilized nearly 60,000 volunteers. Amid the fog of the response, “Occupy Sandy” became one of the leading humanitarian groups providing relief to communities across New York and New Jersey.

Our analysts conducted a case study on Occupy Sandy through the Core Research Program to provide DHS with a basic understanding of potential grassroots disaster relief. By understanding the formation, operations, and capabilities of such groups, government can learn from their innovative practices and can engage with them to unify effort when the next disaster strikes. The research revealed three key drivers of Occupy Sandy’s effectiveness during the response phase of the disaster—horizontal organizing enabled agile responses, social media and open source technologies helped to attract and manage a large volunteer corps and to identify real-time community needs, and the group empowered survivors to solve their own problems and build community resilience.

Additionally, through its research, the team identified a need for and conceptualized a tool to help improve situational awareness and provide a common operating picture for federal, state, and local governments, NGOs, private-sector organizations, and grassroots disaster relief networks. The core research team included findings from the case study in a presentation to the InterAgency Board at its national meeting on February 4, 2014.
Through this task and others, HSSAI is on the leading edge of the intersection between disaster response and social media and other types of nontraditional communications. This allows us to better fulfill our role as a trusted partner by supplying DHS with the information it needs to consider how they can harness emerging trends in a way that synergizes with federal response programs.
“Facilitating this type of unity of effort between the federal, private, and public sectors demonstrates the kind of return on investment that makes us proud and that we strive to achieve through analytical work at HSSAI.”
FEATURED ANALYST

David Jennings

Analyst, Business Enterprise Analysis Division
MS, Conflict Analysis and Resolution, George Mason University
BS, Administration of Justice, George Mason University
9 years of experience; 5.5 years at HSSAI

Drawing on his experience as an analyst on tasks like Project Responder and his educational background in conflict analysis and resolution, David helped lead an effort to increase community resilience in the wake of disasters and other catastrophic incidents. His team sought to identify the ways in which disaster response is evolving and understand how traditional response agencies can become more agile—both of which are critical to the mission of DHS.

This project, the Resilient Social Networks core task, characterized the resources of social networks that are leveraging emergent technologies, such as online registries and open-source communication platforms. These technologies can help meet the needs of local communities, providing even greater response capabilities when combined with more traditional response. David found that social networks and social media can be powerful tools for both official and nontraditional responders by allowing public volunteers to become involved in response and recovery activities in new ways. Emergency managers’ use of these technologies demonstrates a new way forward toward a shared responsibility approach that takes the community to a better post-disaster state with fewer federal resources. This will ultimately increase mission effectiveness despite lower budgets.
Defining Criticality in a Networked World

The landscape of critical infrastructure risks and dependencies is continually evolving. Common approaches used to identify, prioritize, and assess critical infrastructure may not fully account for the widespread use of information and communications technology (ICT) throughout the many critical infrastructure sectors. Stakeholders use such technology to connect systems and assets in many ways, some of which are not obvious, which can introduce new interdependencies and vulnerabilities to critical infrastructure. This complexity makes it more challenging to identify, prioritize, and assess critical infrastructure and to understand the elements that enable its viability in an interconnected, networked world.

In a paper completed under the Core Research Program, HSSAI examined how critical infrastructure uses ICT, how that use is changing, and what the implications are for critical infrastructure identification, prioritization, and assessment. Among other things, the study team found that ICT plays an extensive and expanding role in the provision of essential services; that ICT itself also largely depends on essential services, like electricity; and that ICT use and innovations affect threats to, vulnerabilities of, and consequences involving essential services. The information contained in this paper allows policy makers across DHS and elsewhere to understand the implications of the broad and growing use of ICT in critical infrastructure. Armed with this information, DHS and others can better ensure that critical infrastructure in the United States is secure and resilient.
Measuring Security

Given the immense diversity and nature of its missions, DHS faces the challenge of having to measure problems that do not easily lend themselves to quantification. For example, as part of its border security mission, DHS must try to measure how many people cross the border undetected, essentially determining something it cannot see or count. To assist DHS in understanding how to tackle the measurement of some of these more complex missions, the Measuring Security team used innovative analysis to categorize DHS’s problems into four separate types:

- Straightforward: problems with a definitive solution and available relevant information;
- Fuzzy: problems for which relevant information is available, but no definitive solution exists;
- Hidden: problems for which a definitive solution exists, but relevant information is not available; and
- Fuzzy and hidden: problems for which there is neither a definitive solution nor available relevant information.

The team then analyzed various techniques that could help DHS address these types of challenging and complex problems, drawing not only from techniques commonly used by the Department, but those used by outside organizations. The team showed how DHS could apply these techniques to some of its hard-to-measure challenges. The analysis resulted in the development of a general tool box of techniques and conceptual ways to approach vexing measurement problems.

In addition, the task team analyzed how the emotions of fear and regret influence decision making, and considered how this might affect DHS. Given its mission and reason for being, issues involving fear and potential regret are ever-present at DHS, making it critically important that decision-makers understand these potential effects.
RAISING THE BAR

The Right Team in the Right Place

The impact that we deliver depends on the right team working with the right resources in the right place. Our team of knowledgeable professionals, a collaborative work environment, and technologies that help us work together make us a top-notch organization.

In March 2013, HSSAI and Analytic Services Inc. moved to a new state-of-the-art headquarters facility at the Skyline Technology Center in Falls Church, Virginia. This facility promotes creative collaboration within and across all parts of the business through an open floor plan that lets our analysts from all mission areas and disciplines interact, share information, recognize synergies, and discuss lessons learned on a daily basis.

Our Skyline headquarters is equipped with modern meeting facilities for our clients and staff with leading-edge amenities, including networked teleconferencing equipment and high-definition panoramic digital displays.

Our analysts have welcomed the new technology. In an environment of tight deadlines, even tighter federal travel budgets, and the need to draw in a wide range of stakeholders, the FEMA doctrine project team leveraged virtual meeting technologies to produce high-impact products informed by the insights of FEMA employees nationwide.
“The Center for Response and Security Lessons Learned identifies and pursues emerging opportunities for research while retaining a long-term focus on lessons learned for DHS response and security stakeholders.”
FEATURED ANALYST

Adrian Smith

Senior Analyst, Threat and Risk Analysis Division
MA, Middle Eastern Studies, University of Texas
BA, Political Science, U.S. Air Force Academy
16 years of experience; 7.5 years at HSSAI

In a large and diverse organization like DHS, the ability to share knowledge and learn lessons is critical to success. Recognizing this need, HSSAI created the Center for Response and Security Lessons Learned in 2012. Working as the deputy to the center’s director, Adrian led a team in developing a framework that builds out how the center can serve as a unified location to present DHS with vital lessons learned that based on their unique and individual needs. As DHS’s center of excellence for knowledge management, HSSAI provides timely insight and analysis to DHS decision makers focused on producing actionable recommendations.

During his seven years at HSSAI as a member of the Threat and Risk Analysis Division, Adrian has also leveraged the skills he gained as an intelligence officer in the Air Force, applying them across a wide range of DHS components. Adrian has done work for Customs and Border Protection, the Federal Emergency Management Agency, Immigration and Customs Enforcement, and the Transportation Security Administration.
Sponsor Awards and Recognition

HSSAI is proud to note that in the past year, our sponsors recognized several of our analysts and teams for their efforts and impact on those sponsoring organizations’ important missions. From the Department of State to the DHS Office of Policy to the National Protection and Programs Directorate, our people have proven themselves worthy of these honors. We appreciate our sponsors’ nomination and selection of HSSAI for these awards and are very proud not only of these analysts, but analysts throughout our organization, for the impact they have on programs across the homeland security enterprise.

Challenge Coins from the Department of State for the Export Control and Related Border Security (EXBS) Program Team

Alexis McGrath, Meghan Wool, and Clare Beam received Department of State challenge coins for their support of the EXBS program. The HSSAI team developed and conducted, in Vienna, Austria, a complex tabletop exercise aimed at training U.S. embassy personnel on an assessment methodology. The Department of State traditionally presents challenge coins in recognition of a special achievement or extraordinary assistance.

2013 DHS CFO Budget, Planning & Evaluation Award

Joel Mehler received the 2013 DHS Chief Financial Officer (CFO) Budget, Planning & Evaluation Award for his superior mission achievement as a member of the FY15-19 Program Review Cybersecurity Issue Team. This award is part of the DHS CFO Awards for Excellence program, which recognizes exceptional service and significant contributions to the financial management community. As a member of the cybersecurity issue team, Joel assisted in the development of a mission management plan for the Blueprint for a Secure

“The DHS cyber mission is diverse and complex, with multiple components playing complementary roles for ensuring a safe, secure, and resilient cyberspace. A capability-based approach is the most effective means of coordinating various lines of effort and efficiently allocating scarce resources in the cyber domain. I am pleased that NPPD and CFO have successfully demonstrated a capability-based process for cybersecurity resource allocation, and I am proud to have contributed to this important effort.”

Joel Mehler

2013 DHS Chief Financial Officer (CFO) Budget, Planning & Evaluation Award Recipient
Cyber Future: the Cybersecurity Strategy for the Homeland Security Enterprise (Blueprint). His team worked with the CFO Office of Program Analysis and Evaluation to apply the Blueprint mission management plan to the development of the FY15 Resource Allocation Plan. This project demonstrated a mission-area, capability-based approach to resource planning and budget development for cybersecurity needs across DHS. DHS recognized Joel for his contribution to this effort that helps conserve DHS resources through improved financial management and increased accountability.

Nomination for the DHS Office of Policy Guardian Award

Our sponsors at the DHS Office of Policy nominated the HSSAI Analytic Support to the QHSR Team—Erik Smith, Laura Lynaugh, Catherine Meszaros, Vikram Gupta, Rochelle Love, Joseph Kendall, Alex Karr, and Sibel McGee—for the DHS Office of Policy Guardian Award. The Guardian Award recognizes those who work with the Office of Policy to carry out that office’s missions. It is the highest recognition awarded to those outside the Office of Policy by the Assistant Secretary. The team bolstered the DHS Office of Policy by providing high-quality analytic support throughout the preparatory and execution phases of the Quadrennial Homeland Security Review (QHSR) process. HSSAI provided essential research and analysis to shape each of the QHSR study areas and to inform the development of posture recommendations for the Department. Additionally, the team applied systems analysis tools to characterize various aspects of the homeland security strategic environment. Team members also supported outreach and engagement efforts to improve understanding of the QHSR process, as well as gain support from across the Department, the interagency, and the broader homeland security community. Overall, the contribution of HSSAI analysts was critical to the successful conduct of the 2014 QHSR.
Distinguished Visiting Fellows

Our team is complemented by 12 Distinguished Visiting Fellows who represent a wide range of expertise and experience in homeland security. The HSSAI Distinguished Visiting Fellows program enlists renowned leaders in the field of homeland security to serve as strategic advisors and experts, contribute to our work across the enterprise, and represent HSSAI at events throughout the country. These fellows expand our network and enhance recruitment of a talented network of analysts. Many task teams draw on the resources embodied in these fellows, who, in the last year, have worked on projects from informing the new National Infrastructure Protection Plan to helping DHS prioritize its mission integration activities. Our sponsors highly value the engagement of the fellows, frequently calling on them for expert advice.

From left to right: Elaine Duke, Dr. David McIntyre, Dr. Stephen Flynn, Larry Castro, Robert Tuohy (HSSAI Deputy Director), Rear Admiral Thomas Atkin, Col. Robert Stefan, Dr. Philip Anderson (HSSAI Director), Dr. Paul Stockton, William Modzeleski, Lt. Gen. Keith Stalder (not pictured: Col. Terry Ebbert, Dr. Robert Kadlec, Paul Rosenzweig).
Rear Admiral Thomas Atkin (USCG, retired)
Managing Principal at The Atkin Group
Former Assistant Commandant for Intelligence and Criminal Intelligence,
U.S. Coast Guard

Mr. Larry Castro
Managing Director, Chertoff Group
Former National Security Agency (NSA)/Central Security Service
representative to DHS

Ms. Elaine Duke
Principal, Elaine Duke & Associates
Former Under Secretary for Management, DHS

Col. Terry Ebbert (USMC, retired)
CEO, Ebbert & Associates
Former Director of Homeland Security for the City of New Orleans

Dr. Stephen Flynn
Director, Center for Resilience Studies, Northeastern University
Former President, Center for National Policy

Dr. Robert Kadlec
Former Special Assistant to the President and Senior Director for
Biodefense Policy, the White House

Dr. David McIntyre
Vice President of Academic Affairs, HSM at National Graduate School &
University
Former Director, Director of the Integrative Center for Homeland Security,
Texas A&M University

Mr. William Modzeleski
Former Associate Assistant Deputy Secretary, Department of Education

Mr. Paul Rosenzweig
Founder, Red Branch Law & Consulting
Former Deputy Assistant Secretary for Policy, DHS

Lieutenant General Keith J. Stalder (USMC, retired)
Founder, Keith Stalder & Associates
Former Marine Corps Forces U.S. Pacific Command

Col. Robert Stephan (USAF, retired)
President, Stephan Risk Solutions
Former Assistant Secretary for Infrastructure Protection, DHS

Dr. Paul Stockton
President, Cloud Peak Analytics
Former Assistant Secretary of Defense for Homeland Defense and
Americas’ Security Affairs
FEATURED ANALYST

Mary “Ginny” Boone

Associate Analyst, Threat and Risk Analysis Division
BS, Mathematics, Vanderbilt University
2 years of experience; 1.5 years at HSSAI

Widely regarded across HSSAI as a talented researcher and analyst, Ginny has been integral to numerous tasks over the past year. When a sponsor asked HSSAI to identify all weapon of mass destruction (WMD)–related activities across all of DHS in only a few weeks, the task team added Ginny to the team to bring her ability to both research and analyze information quickly and accurately to bear. She helped the team not only identify these activities, but locate gaps and redundancies that may complicate the execution of WMD-related missions. Her work enabled the team to make recommendations regarding ways to structure the Department’s WMD activities to increase effectiveness.

Through her study of mathematics, Ginny learned the value of both thinking through a problem logically and refusing to accept unproven assumptions. Ginny has drawn on this way of thinking as a part of numerous quantitative and qualitative analyses at HSSAI. While working on the Transportation Sector Security Risk Assessment (TSSRA) task for the Transportation Security Administration (TSA), Ginny’s work ranged from writing the code for an aviation risk model to writing and editing the TSSRA report to Congress. TSA depended on Ginny and her team to conduct unbiased analysis and ensure the soundness and accuracy of one of its most high-profile products.
"The threat to transportation is constantly changing, so staying one step ahead of it is a persistent challenge. The adaptive nature of terrorists demands that we efficiently and intelligently apply our analytic skills to thwart their efforts."
Shaping the Next Generation

Each year, DHS sponsors a 10-week summer internship program for undergraduate students majoring in homeland security-related science, technology, engineering, and mathematics (HS-STEM) disciplines. The program provides students with quality research experiences at federal research facilities located across the country and allows them to establish connections with DHS professionals. The ultimate goals of the program are to engage a diverse, educated, and skilled pool of scientists and engineers in HS-STEM areas and to promote long-term relationships among students, researchers, DHS, and research facilities to enhance the HS-STEM workforce.

HSSAI is happy to welcome these interns into our organization each summer, as we help build intellectual capital in the next generation of homeland security professionals. This past summer, HSSAI hosted five HS-STEM interns who learned about careers in homeland security, gained research and analytic techniques, and honed written and oral presentation skills through their internship program. A team of HSSAI analysts served as mentors to guide them through their projects and expose them to a range of homeland security disciplines. Other HSSAI analysts organized field trips to expose the students to a wide variety of homeland security activities (including visits to the U.S. Customs and Border Protection Springfield Laboratory, the U.S. Coast Guard Station in Washington, D.C., the Transportation Security Operations Center, and the Office of the U.S. Senate Sergeant at Arms). In addition, the HSSAI Intern Development Team produced professional skill-building workshops, a book club to discuss ideas and interact with other HSSAI analysts, and classes to teach the students about systems thinking and decision analytics.

The students’ work has already paid dividends for HSSAI; we have used it in projects for sponsors or as foundational research. The DHS HS-STEM Summer Internship Program website
featured one of HSSAI's interns, Emma Lieberman, a senior in mathematical social science at Tufts University. Her interest in and research on housing and community rebuilding following disasters became very personal following the destruction left by Superstorm Sandy, which swept through her home town of Tenafly, N.J. Emma has since joined a training program through the U.S. Coast Guard’s Auxiliary University Program, where she is learning to become a vessel examiner and boat crew qualified.
Counterterrorism, Borders, and Immigration

The Counterterrorism, Borders, and Immigration Mission Area seeks to inform the decisions of DHS staffs in reducing risk and allocating scarce resources against terrorist threats. It includes a broad spectrum of security challenges and a diverse sponsor base within and outside DHS.

The counterterrorism component informs and improves efforts to deter or defeat terrorist operations. The component also focuses on security operations, law enforcement, investigative activities, and efforts to mitigate unauthorized acquisition and use of chemical, biological, radiological, and nuclear materials.

The borders and immigration component develops strategies and improves operations to reduce the flow of illegal immigrants and contraband, and adjudicate applications for citizenship and legal residence.

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Maturing and Strengthening the Homeland Security Enterprise

The Maturing and Strengthening the Homeland Security Enterprise Mission Area is concerned with the processes used to manage the delivery of services to the homeland security enterprise.

The mission area encompasses a wide range of activities. These activities include strategic planning, analysis of capability gaps and mission needs, organizational and programmatic alignment, policy analysis, program and portfolio management, acquisition management, test and evaluation, life cycle cost analysis, learning management, workforce analysis, the development of meaningful measures of effectiveness, and other related activities.

Key stakeholders are not limited to the DHS Management Directorate since MSE-related studies potentially benefit the entire extended homeland security enterprise. They provide benefits directly through the identification of cost-effective alternatives. In addition, the studies provide indirect benefits by developing conceptual frameworks that promote unity of effort and enable the identification of needed improvements to policy and management systems.

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Resilience and Emergency Preparedness / Response

The Resilience and Emergency Preparedness/Response Mission Area supports activities associated with preparing for, responding to, recovering from, and mitigating the effects of incidents across the all-hazard spectrum. Critical stakeholders in this area include several DHS organizations: FEMA, U.S. Coast Guard, the Offices of Health Affairs and Operations Coordination, and the National Protection and Programs Directorate.

Resiliency—including continuity of operations, continuity of government, and individual and community preparedness activities—is a key component of this mission area. Improving the effectiveness of operations and plans (through the development of doctrine and concepts of operations) while integrating stakeholder perspectives are also priorities.

To achieve the most effective response possible, this mission area supports DHS’s ability to integrate the efforts of federal, state, territorial, and local jurisdictions; nongovernmental organizations; and the private sector.

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