

CRS Report for Congress

Received through the CRS Web

Homeland Security Grants: Evolution of Program Guidance and Grant Allocation Methods

August 1, 2006

Shawn Reese
Analyst in American National Government
Government and Finance Division

Homeland Security Grants: Evolution of Program Guidance and Grant Allocation Methods

Summary

On May 31, 2006, the U.S. Department of Homeland Security (DHS) announced FY2006 allocations of federal homeland security assistance to states and urban areas. That assistance is made available through the following three programs:

- the *State Homeland Security Grant Program* (SHSGP), which is designed to fund state homeland security strategy activities to build first responder and emergency management capabilities to prevent, protect against, respond to, and recover from acts of terrorism and catastrophic events;
- the *Law Enforcement Terrorism Prevention Program* (LETPP), which focuses on law enforcement and public safety activities to prevent terrorist attacks through such activities as intelligence gathering, information sharing, and target hardening; and
- the *Urban Area Security Initiative* (UASI), which is designed to fund designated high-threat, high-risk urban-area activities to prevent, protect against, and respond to terrorist attacks and catastrophic events.

The programs provide funds to address planning, operations, equipment, training, and exercise needs of states and high-threat, high-density urban areas. The purpose of the set of programs is to help recipients build and sustain first responder and emergency management capabilities to prevent, protect against, respond to, and recover from terrorist attacks and catastrophic events. The USA PATRIOT Act guarantees each state an amount of 0.75% of total SHSGP and LETPP appropriations. The remaining appropriation and the appropriation for UASI grants are allocated at the discretion of the Department of Homeland Security.

This CRS report explains the evolving administrative guidance that governs the three homeland security assistance programs, discusses the changing DHS requirements for grant applications and subsequent reporting by recipients, describes the DHS grant allocation methods, and identifies pertinent oversight questions that may be of interest to Congress.

Contents

Introduction	1
Administration Guidance	2
National Preparedness Goal	3
National Preparedness Guidance	4
Planning Scenarios	5
Universal Task List	6
Target Capabilities List	7
State and Urban Area Reporting and Application Requirements	8
State and Urban Area Homeland Security Strategies	9
Program and Capability Enhancement Plan	9
Investment Justification	9
Categorical Assistance Progress Report	10
Allocation Methods	11
Risk	11
Effectiveness	15
Appendix A. FY2003-FY2006 DHS Grant Allocation Methodologies	22

Homeland Security Grants: Evolution of Program Guidance and Grant Allocation Methods

Introduction

On May 31, 2006, the U.S. Department of Homeland Security (DHS) announced FY2006 allocations of federal homeland security assistance to states and urban areas.¹ That assistance is made available through the following three programs:

- the *State Homeland Security Grant Program* (SHSGP), which is designed to fund state homeland security strategy activities to build first responder and emergency management capabilities to prevent, protect against, respond to, and recover from acts of terrorism and catastrophic events;
- the *Law Enforcement Terrorism Prevention Program* (LETPP), which focuses on law enforcement and public safety activities to prevent terrorist attacks through such activities as intelligence gathering, information sharing, and target hardening; and
- the *Urban Area Security Initiative* (UASI), which is designed to fund designated high-threat, high-risk urban-area activities to prevent, protect against, and respond to terrorist attacks and catastrophic events.

The programs provide funds to address planning, operations, equipment, training, and exercise needs of states and high-threat, high-density urban areas. The purpose of the set of programs is to help recipients build and sustain first responder and emergency management capabilities to prevent, protect against, respond to, and recover from terrorist attacks and catastrophic events. The USA PATRIOT Act guarantees each state an amount of 0.75% of total SHSGP and LETPP appropriations.² The remaining appropriation and the appropriation for UASI grants are allocated at the discretion of the Department of Homeland Security.³

This CRS report explains the evolving administrative guidance that governs the three homeland security assistance programs, discusses the changing DHS requirements for grant applications and subsequent reporting by recipients, describes

¹ U.S. Department of Homeland Security, FY2006 State and Local Homeland Security Grant Awards, [http://www.dhs.gov/interweb/assetlibrary/grants_st-local_fy2006.pdf], p. 2.

² P.L. 107-56, Sec. 1014.

³ P.L. 109-90 (FY2006 DHS appropriations), Title III.

the DHS grant allocation methods, and identifies pertinent oversight questions that may be of interest to Congress.

Almost immediately after DHS announced the FY2006 allocations, some states and urban areas, and their congressional delegations pointed out reductions in grants as compared to FY2005.⁴ Some Members of Congress raised questions about the suitability of the methods DHS used to allocate the grants, and they pursued those questions in congressional oversight hearings.⁵

The DHS method for allocating the discretionary SHSGP and LETPP amounts has evolved since the department's inception in March 2003. Before FY2006, the department allocated the SHSGP and LETPP remainders in direct proportion to state population. It allocated UASI grants, however, using the following indicators of risk: credible threat, presence of critical infrastructure, vulnerability, population, population density, law enforcement investigative and enforcement activity, and the existence of formal mutual aid agreements among jurisdictions. Beginning in FY2006, however, DHS allocated the discretionary amounts available through all three programs based on departmental assessments of *risk* and the *effectiveness* of the recipients' proposed solutions to their identified homeland security needs.⁶ (See **Appendix A** for time lines for each of the three programs.)

Administration Guidance

The three programs that provide homeland security assistance to states and urban areas are governed by law and by an evolving framework of administrative documents. The administrative guidance is embodied in Homeland Security Presidential Directives 5 (February 28, 2003), 7 (December 17, 2003), and 8 (December 17, 2003); the National Strategy for Homeland Security; the National Preparedness Goal; Capabilities-Based Planning Tools (December 17, 2004); National Preparedness Guidance (December 2005); and annual Homeland Security Grant Program Guidance and Application Kits (November 2002; November 2003; December 2004; December 2005), which detail federal, state, local, and non-federal entities' responsibilities to prevent, protect against, respond to, and recover from terrorist attacks and catastrophic events. The annual program guidance requires applicant states and urban areas to describe their homeland security objectives, goals, first responder and emergency management capabilities, and need for federal homeland security assistance. The most immediately pertinent guidance is discussed below.

⁴ See as examples "Lieberman Assails Homeland Security Grant Distribution," States News Service, May 31, 2006; and Lara Jakes Jordan, "N.Y., D.C. Get Less Counterterrorism Funds," Associated Press, May 31, 2006.

⁵ Two hearings have been held since DHS announced state and urban area grant allocations on May 31, 2006 — the House Committee on Government Reform hearing on grants for the National Capital Region, June 15, 2006; and the House Committee on Homeland Security hearing on DHS grants, June 21, 2006.

⁶ U.S. Department of Homeland Security, Office for Grants and Training, *FY2006 Homeland Security Grant Program Fact Sheet: Overview* (Washington: May 2006), p. 2.

National Preparedness Goal. Homeland Security Presidential Directive 8 (HSPD-8) requires the DHS Secretary to develop a National Preparedness Goal (NPG) to improve the nation's capabilities and practices to ensure that adequate resources exist to respond to a catastrophe. The directive sets forth the following specific task:

The national preparedness goal will establish measurable readiness priorities and targets that appropriately balance the potential threat and magnitude of terrorist attacks, major disasters, and other emergencies with the resources required to prevent, respond to, and recover from them. It will also include readiness metrics and elements that support the national preparedness goal including standards for preparedness assessments and strategies, and a system for assessing the nation's overall preparedness to respond to major events, especially those involving acts of terrorism.⁷

DHS has issued several versions of draft preparedness goals in accordance with the statutory mandate in the FY2005 and FY2006 DHS appropriations acts, as well as HSPD-8. The most recent, issued in December 2005, supersedes its predecessors. The *National Preparedness Goal*:

- aims at engaging federal, non-federal, non-governmental entities, and the public in efforts to enhance their capability for preventing, responding to, and recovering from attacks, disasters, and emergencies;
- uses and supports the *National Response Plan* and the National Incident Management System (NIMS) and the *National Infrastructure Protection Plan*;
- incorporates an all-hazards, risk-based approach that encourages officials to strengthen capabilities, and establishes national priorities in emergency preparedness; and
- seeks to clarify the roles and responsibilities of federal and non-federal entities.⁸

The document emphasized that preparedness is a shared responsibility of all units of government, it declared the Administration's intent to publish additional guidelines in 2005, and it presented seven national preparedness priorities:

- Implement the *National Incident Management System* and the *National Response Plan*;
- Expand regional collaboration;

⁷ U.S. President (Bush), "National Preparedness," Homeland Security Presidential Directive 8, Dec. 17, 2003, Sec. 6.

⁸ U.S. Department of Homeland Security, *National Preparedness Goal* [draft], Dec. 2005, pp. 1-12.

- Implement the *National Infrastructure Protection Plan*;
- Strengthen information sharing and collaboration capabilities;
- Strengthen interoperable communications capability;
- Strengthen Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) detection capabilities; and
- Strengthen medical surge capabilities.⁹

Possible Oversight Issues. The NPG is to “guide the nation in achieving its vision for preparedness.”¹⁰ Arguably, the NPG is one of the more important DHS documents issued to create an effective system that integrates federal, state, and local preparedness efforts. In FY2006, state and urban areas were required to submit *Homeland Security Strategies, Program and Capability Enhancement Plans*, and *Investment Justifications* (discussed elsewhere in this report) to be eligible for federal homeland security assistance. Some critics assert that states and urban areas have prepared these documents without necessary federal guidance. For example, a study released by the Government Accountability Office (GAO) concluded that the lack of preparedness standards presented a “challenge,” and that “efforts by state and local jurisdictions to prioritize expenditures to enhance first responder preparedness have been hindered by the lack of clear guidance in defining the appropriate level of preparedness and setting priorities to achieve it.”¹¹

- *Issue:* What role have state and local officials played in the NPG development process? Were they given the opportunity to provide feedback on the NPG while it was in development?
- *Issue:* How were state and local homeland security priorities taken into account in the NPG development? How were federal, and state and local priorities reconciled?
- *Issue:* Will state and local homeland security concerns be given lower priority if states and localities are to focus their preparedness efforts on meeting NPG standards to receive federal assistance?

National Preparedness Guidance. The *National Preparedness Guidance*, issued as a companion document to the *National Preparedness Goal*, provides instructions and guidance on how to implement the goal. The *National Preparedness Guidance* is to evolve and be reissued as needed to reflect (1) changes in the National Priorities and (2) further development of the Capabilities-Based Planning Process and

⁹ Ibid., pp. 13-20.

¹⁰ Ibid., p. 2.

¹¹ U.S. Government Accountability Office, *Homeland Security: Management of First Responder Grant Programs Has Improved, but Challenges Remain*, GAO Report GAO-05-121 (Washington: Feb. 2005), p. 18.

associated tools.¹² The *Guidance* introduces the National Planning Scenarios, Universal Task List (UTL), and Target Capabilities List (TCL), and reviews assessment standards for preparedness efforts. Use of the *Guidance*, particularly through the use of the assessment metrics, is intended to ensure that preparedness resources are used effectively and that a better understanding is developed of the emergency preparedness capabilities at all levels of government.

The assessment process set forth in the *Guidance* comprises the following four elements:

- COMPLIANCE ASSESSMENT — a checklist of whether federal and non-federal entities have accomplished specified requirements;
- CAPABILITY ASSESSMENT — initially based on a sampling of states and sub-state regions;
- NEEDS ASSESSMENT — the identification of resource needs based on capability assessments; and
- PERFORMANCE ASSESSMENT — measured through after-action reports and documentation of performance in exercises and emergencies.

Possible Oversight Issues. As the *Guidance* continues to evolve based on capabilities review at the federal and state levels, first responder and emergency management entities are to respond by adapting their plans accordingly.

- *Issue:* To what extent have state and local officials been part of the *Guidance* development process?
- *Issue:* As DHS continues to conduct capability reviews and develop the *Guidance*, to what extent will states and urban areas have opportunities to provide input before they are expected to adjust their plans following changes in the *Guidance*?

Planning Scenarios. DHS developed 15 scenarios to assess the emergency response and preparedness capabilities of state, local, and tribal governments. The scenarios were not developed to identify events that may occur. Instead, they are intended to facilitate efforts by all government agencies to assess the full range of needs that might be manifested were similar events actually to occur. Some of the scenarios include nuclear detonation, biological attack, chemical attack, natural disaster, radiological attack, explosive attack, or cyber attack. Each scenario is accompanied by descriptions of impacts and consequences. Also, eight mission areas

¹² U.S. Department of Homeland Security, *National Preparedness Guidance* (Washington: Apr. 2005), p. 1.

are discussed for each scenario in order to outline the types of responses that might be expected.¹³

According to NPG, “catastrophic WMD scenarios predominate since they present the gravest threat to our national interests and generally require capabilities for which the nation is currently the least prepared.”¹⁴ The scenarios depict events that might require federal involvement and coordination; such events are referred to as Incidents of National Significance.

Possible Oversight Issues. Some have questioned whether the emphasis by DHS on terrorist attacks indicates that the NPG, the *Guidance*, and Planning Scenarios are disproportionately oriented toward terrorist attacks and away from the more frequently occurring catastrophes, natural disasters. Some might argue that the terrorism focus of the DHS preparedness guidance and its associated grant programs constitute a shift from the “all-hazards” approach.

- *Issue:* Is there a conflict between terrorism-focused preparedness guidance and grants with all-hazards planning? Is “all-hazards” planning dominated by terrorism concerns?
- *Issue:* Should federal preparedness guidance and assistance programs be refocused to place greater emphasis on an all-hazards approach?
- *Issue:* If a state or an urban area focuses its HSGP application on all-hazards, will it receive less funding, even if the state or urban area has a greater terrorism risk than other states or urban areas?

Universal Task List. State and local governments must be deemed able to implement certain tasks involving the delivery of services, needs assessments, organizational requirements, and other requirements in order to receive federal homeland security assistance in FY2006. The Universal Task List (UTL) identifies the operations and tasks expected to be performed were events similar to those set out in the planning scenarios to occur. Five categories organize the tasks in the UTL — National Strategic Tasks; Planning; Coordination and Support; Incident Management; and Incident Prevention and Response.

Possible Oversight Issues. Not all jurisdictions are expected to accomplish every UTL task. Terrorist attacks and catastrophic events require coordinated intergovernmental and interjurisdictional responses. The UTL identifies the range of tasks that responding agencies and entities, in mutual aid agreements, are expected to accomplish. Training and exercise programs (funded through SHSGP, LETPP,

¹³ The eight mission areas are: Prevention/Deterrence/Protection; Emergency Assessment/Diagnosis; Emergency Management/Response; Incident/Hazard Mitigation; Public Protection; Victim Care; Investigation/Apprehension; and Recovery/Remediation.

¹⁴ U.S. President (Bush), “National Preparedness,” Homeland Security Presidential Directive 8, Dec. 17, 2003.

and UASI) are expected to be based upon the UTL and related mission requirements.¹⁵

- *Issue:* If DHS does not expect individual jurisdictions to accomplish all of the tasks and if they do not have to meet every UTL standard, how are those jurisdictions and states to be judged “capable”? Will the inability to meet every UTL standard affect their grant allocations?
- *Issue:* Will DHS or states have primary responsibility for identifying the UTL task areas that require priority in training efforts? Will DHS prioritize funding, from its homeland security assistance programs, to states that are determined to be in need of the training?

Target Capabilities List. The Target Capabilities List (TCL) identifies and describes the “critical” capabilities that must be performed during Incidents of National Significance in order to reduce losses and successfully respond to a disaster, regardless of cause.¹⁶ Like the UTL, the TCL is based upon the 15 planning scenarios; but the capabilities are expected to be used for all catastrophes, not just those identified in the scenarios. The TCL identifies 36 target capabilities, each of which is associated with the tasks set out in the UTL. Among the capabilities identified in the TCL are all hazards planning, criminal investigation and intervention, critical infrastructure protection and risk management, and emergency response communications.¹⁷

Possible Oversight Issues. The TCL establishes expected qualifications to be possessed by state and local governments. It also notes that the “UTL and TCL will be enhanced, revised, and strengthened with periodic input from all levels of government....”¹⁸ This might indicate that the expected levels of TCL proficiency may shift and be subject to negotiation. The TCL also states that a “detailed training analysis for the target capabilities” will be conducted.¹⁹

- *Issue:* To what extent will jurisdictions be expected to be competent in specific capabilities, considering that a state or an urban area’s grant application is partially scored on its effectiveness to enhance targeted capabilities?
- *Issue:* If expected TCL proficiency may shift, how is a state or urban area to show TCL effectiveness in its grant application?

¹⁵ U.S. Department of Homeland Security, Office for Domestic Preparedness, *Universal Task List 2.0* (Washington: 2005), p. iv.

¹⁶ U.S. Department of Homeland Security, Office for State and Local Government Coordination and Preparedness, *Target Capabilities List: Version 1.0* (Washington: 2005).

¹⁷ Ibid.

¹⁸ Ibid., p. 5.

¹⁹ Ibid., p. 6.

State and Urban Area Reporting and Application Requirements

When DHS was established and its initial assistance programs for state and urban area governments were created, only two documents were required to support assistance applications — a *State Homeland Security Strategy* and a follow-up *Categorical Assistance Progress Report*. Criteria for the *Strategy* were established by the new department, but the progress report was carried over from the Department of Justice (DOJ) along with programs that were transferred from DOJ into the new Department of Homeland Security. In FY2003, DHS required states and urban areas to submit an equipment budget worksheet with their grant applications. The worksheet was to list the equipment to be purchased, the number of items, the estimated total cost, and the first responder entity that would receive the equipment.²⁰ In FY2004, however, DHS stopped requiring the equipment budget worksheet. In the DHS appropriations act of FY2006, approved on October 18, 2005, Congress gave the DHS Secretary the discretion to require additional reports from assistance recipients.²¹

Table 1. DHS Reporting Requirements, FY2006

Documents	Required Contents
As part of the application process	
<i>Homeland Security Strategy</i>	Homeland security goals and objectives
<i>Program and Capability Enhancement Plan</i>	Plans to achieve or enhance first responder and emergency management capabilities
<i>Investment Justification</i>	Homeland security needs based on strategies and <i>Enhancement</i> plans
	Plans to address homeland security needs, and goals and objectives
Accountability following assistance allocation	
<i>Categorical Assistance Progress Report</i>	Semiannual progress toward meeting homeland security goals and objectives

Source: U.S. Department of Homeland Security, Office for Grants and Training, *Fiscal Year 2006 Homeland Security Grant Program: Program Guidance and Application Kit*.

²⁰ U.S. Department of Homeland Security, Office for Domestic Preparedness, *Fiscal Year 2003 State Homeland Security Grant Program: Program Guidance and Application Kit* (Washington: Dec. 2002), p. 9.

²¹ P.L. 109-90 (FY2006 DHS appropriations), Title III.

Pursuant to that discretionary authority, DHS currently requires the following documents from states and urban areas: a *State Homeland Security Strategy*; a *Program and Capability Enhancement Plan*; an *Investment Justification*; and a *Categorical Assistance Progress Report*. The required contents of each of these four documents are shown in **Table 1**, and they are discussed below.

State and Urban Area Homeland Security Strategies. The homeland security strategies required for homeland security grant applications from states and urban areas are roadmaps that identify state and urban area homeland security goals and objectives for the fiscal year. The goals and objectives are based on the applicants' self-assessments of their homeland security risks, threats, and needs.

Within the strategy, states and urban areas are to provide information on how they plan to use federal assistance to meet their goals and objectives. The strategy is not required to include a list of specific equipment, training, plans, and exercises the applicant proposes. The strategy matches federal assistance with a state or urban area homeland security goal or objective. As a condition for FY2006 funding, DHS required states and urban areas to update the homeland security strategies they prepared for previous grant applications.²²

Program and Capability Enhancement Plan. The *Enhancement* plan is to outline how states and urban areas intend to achieve or enhance their first responder and emergency management capabilities identified on the Target Capabilities List (TCL). The TCL, which is part of the National Preparedness Guidance,²³ is a list of activities and abilities that state and urban area first responder and emergency management entities need to be able to perform in the event of a terrorist attack or disaster. Among the needed TCL capabilities are community preparedness, risk management, law enforcement operations, information sharing, critical infrastructure protection, and emergency operations center management.

The plan must be provided to DHS prior to the department's determination of the applicant's federal assistance allocation. The plan does not list specific equipment, training, plans, or exercises. The plan identifies TCL capabilities that states and urban areas intend to achieve or enhance with federal homeland security assistance.

Investment Justification. Another document DHS requires prior to allocating state and urban area federal assistance is the *Investment Justification*. The justification lists state and urban area homeland security needs that are identified during the development of the *Program and Capability Enhancement Plan*. The justification outlines implementation plans that will assist states and urban areas to

²² U.S. Department of Homeland Security, Office for Grants and Training, *Fiscal Year 2006 Homeland Security Grant Program: Program Guidance and Application Kit* (Washington: Dec. 2005), p. 52.

²³ U.S. Department of Homeland Security, Office for Grants and Training, *National Preparedness Goal* (Washington: Mar. 2005).

enhance and develop their homeland security capabilities.²⁴ As with the *Strategy* and *Enhancement* plan, the justification is not required to include specific information on state and urban area expenditures, but identifies need for federal assistance, and how assistance will be used to meet homeland security goals, objectives, and capabilities.

These three documents — the *State Homeland Security Strategy*, the *Program and Capability Enhancement Plan*, and *Investment Justification* — are part of the assistance application and are considered by DHS when determining funding allocations.

Categorical Assistance Progress Report. Following allocation of federal assistance, DHS requires states and urban areas to report twice a year on how they used their federal assistance allocations to meet their homeland security goals and objectives, as identified in each one's *Strategy*.²⁵ The reports are to present information on the state's or urban area's progress in achieving its homeland security goals and objectives, but it is not required to list specific homeland security expenditures.

Possible Oversight Issues. During the early years of federal homeland security assistance, DHS required recipients to report expenditures for homeland security equipment, plans, training, or exercises. Those expenditure reports are no longer required. Some critics could argue that this absence of information on state and urban area expenditures might result in DHS being incompletely apprised of state and local homeland security activities, and such a lack of information would impede the department's determination of whether the nation's homeland security needs were being met effectively and efficiently. For example, GAO's Director of Homeland Security and Justice Issues, William O. Jenkins, Jr., made the following statement before California's Little Hoover Commission:²⁶

In the last several years, the federal government has awarded some \$11 billion in grants to federal, state, and local authorities to improve emergency preparedness, response, and recovery capabilities. What is remarkable about the whole area of emergency preparedness and homeland security is how little we know about how states and localities (1) finance their efforts in this area, (2) have used their federal funds, and (3) are assessing the effectiveness with which they spend those funds.²⁷

²⁴ U.S. Department of Homeland Security, Office for Grants and Training, *Fiscal Year 2006 Homeland Security Grant Program: Program Guidance and Application Kit*, p. 52.

²⁵ *Ibid.*, p. 65.

²⁶ The Little Hoover Commission is a bipartisan, independent California commission that promotes efficiency and effectiveness of state programs. For more information, see [<http://www.lhc.ca.gov/lhc.html>].

²⁷ U.S. Government Accountability Office, Center for Homeland Security and Justice Issues, Director, William O. Jenkins, Jr., "Emergency Preparedness and Response: Some Issues and Challenges Associated with Major Emergency Incidents," GAO Report GAO-06-467T (Washington: GAO, Feb. 2006), p. 13.

On the other hand, one could argue that with all the other information that it requires, DHS does not need to know specific state and urban area expenditures.

- *Issue:* Do the present state and urban area reporting and application requirements provide sufficiently comprehensive information to ensure that federal homeland security assistance is used in a manner that contributes to homeland security?
- *Issue:* What are the advantages and disadvantages of requiring states and urban areas to submit a detailed list of homeland security expenditures?

Allocation Methods

In FY2006, DHS allocated the discretionary portions of SHSGP and LETPP grants and all UASI grants on the basis of two factors: risk and effectiveness.

Risk. DHS defines risk as a function of three variables:

- THREAT — “the likelihood of a type of attack that might be attempted”;
- VULNERABILITY — “the likelihood that a terrorist would succeed with a particular type of attack”; and
- CONSEQUENCE — “the potential impact of a particular attack.”²⁸

DHS calculates two kinds of risk: *asset-based risk*, which uses threat values derived from the U.S. intelligence community’s assessment of threats to specific critical infrastructure, and *geographic-based risk*, which uses values based on inherent risks associated with geographic areas, taking into account such factors as international borders, terrorism reports and investigations, and population density. DHS describes its approach to asset-based risk as follows:

The asset-based approach uses strategic threat estimates from the Intelligence Community of an adversary’s intent and capability to attack different types of assets (such as chemical plants, stadiums, and commercial airports) using different attack methods. DHS analyzes the vulnerability of each asset type relative to each attack method to determine the form of attack most likely to be successful.

Additionally, DHS estimates the consequences that successful attacks would have on each asset type, including human health, economic, strategic mission, and psychological impacts. This analysis yields a relative risk estimate for each asset type, which DHS applies to a given geographic area, based on the number of each asset type present within that area.²⁹

²⁸ U.S. Department of Homeland Security, Office for Grants and Training, *FY2006 HSGP Fact Sheet: Risk Analysis* (Washington: May 2006), p. 2.

²⁹ Ibid.

The department explains its complementary “geographic-based risk calculations” as follows:

The geographic-based approach allows DHS to consider general characteristics of a geographic area mostly independent of the assets that exist within that area. First, DHS evaluates reported threats, law enforcement activity (using Federal Bureau of Investigation and Immigration and Customs Enforcement terrorism case data), and suspicious incidents reported during the evaluation period. Next, DHS considers vulnerability factors for each geographic area, such as the area’s proximity to international borders.

Lastly, DHS estimates the potential consequences of an attack on that area, including human health (e.g., population, population density, transient populations), economy (e.g., percentage of Gross Domestic Product, total agriculture sales, international cargo value), strategic mission (e.g., defense industrial base), and psychological impacts.”³⁰

Table 2, below, presents state and urban area assets that DHS considered in the risk model for its grant allocation method.

Table 2. Asset Types Used in Asset-Based Risk Calculations

Asset types	State assets	Urban area assets
Chemical manufacturing facilities	■	■
City road bridges	■	■
Colleges and universities	■	■
Commercial airports	■	■
Commercial shipping facilities	■	■
Convention centers	■	■
Dams	■	■
Electricity generation facilities	■	■
Electrical substation	■	■
Enclosed shopping malls	■	■
Ferry terminals	■	■
Financial facilities	■	■
Hospitals	■	■
Hotel casinos	■	■

³⁰ Ibid.

Asset types	State assets	Urban area assets
Levees	■	■
Liquefied natural gas terminals	■	■
Maritime port facilities	■	■
Mass transit commuter rail and subway stations	■	■
National Health Stockpile sites	■	■
National monuments and icons	■	■
Natural gas compressor stations	■	■
Non-power nuclear reactors	■	■
Nuclear power plants	■	■
Nuclear research labs	■	■
Petroleum pumping stations	■	■
Petroleum refineries	■	■
Petroleum storage tanks	■	■
Potable water treatment facilities	■	■
Primary and secondary schools	■	■
Railroad bridges	■	■
Railroad passenger stations	■	■
Railroad tunnels	■	■
Road commuter tunnels	■	■
Road interstate bridges	■	
Road interstate tunnels	■	
Stadiums	■	■
Tall commercial buildings	■	■
Telecommunication -Telephone trunking sites	■	■
Theme parks	■	■
Trans-oceanic cable landings	■	■

Source: U.S. Department of Homeland Security, Office for Grants and Training, *FY2006 HSGP Fact Sheet: Risk Analysis*.

As can clearly be seen in **Table 2**, all but two asset types — road interstate bridges and road interstate tunnels — apply both to states and to urban areas.

Table 3, below, presents what DHS calls the “geographic attributes” that the department uses in its geographically based risk analysis.

Table 3. DHS’s Risk Calculation Geographic Attributes

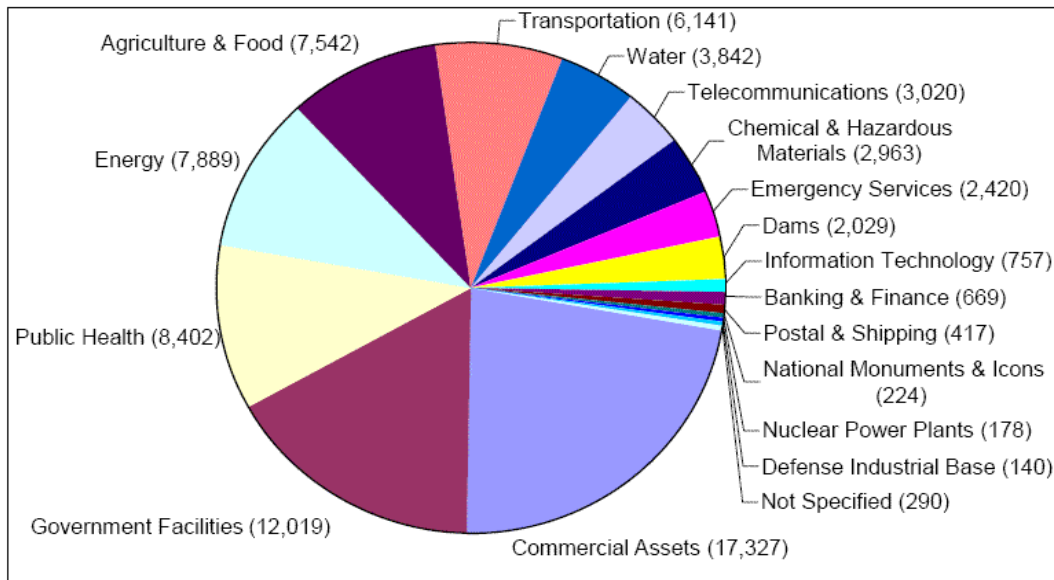
Risk Calculation Geographic Attributes	State attributes	Urban area attributes
Defense Industrial Base facilities	■	■
Federal Bureau of Investigation Basic and Special cases	■	■
Gross Domestic Product	■	
I-94 Visitors from countries of interest	■	■
Intelligence community credible and less credible threat reports	■	■
Immigration and Customs Enforcement Basic and Special cases	■	■
Miles of international border	■	
Military bases	■	■
Nuclear Waste Isolation Pilot Plan transportation routes	■	■
Population	■	■
Population density	■	■
Port of Entry and Border crossings (people from countries of interest and annual throughput)	■	■
Port population	■	■
Port population density	■	■
Ratio of law enforcement to population	■	
Special events	■	■
State international export trade	■	
State total agriculture sales	■	
Sum of population density of urban areas	■	
Sum of population of urban areas	■	
Suspicious incidents (credible and less credible)	■	■
Vessels of special interest	■	■

Source: U.S. Department of Homeland Security, Office for Grants and Training, *FY2006 HSGP Fact Sheet: Risk Analysis*.

In December 2003, President Bush issued HSPD-7, a directive on *Critical Infrastructure Identification, Prioritization, and Protection* which established a national policy for federal departments and agencies to identify and prioritize U.S. critical infrastructure and key resources and to protect them from terrorist attacks. DHS is responsible for establishing a risk management framework to coordinate the federal effort. The framework is supported by a comprehensive, national asset inventory — the National Asset Database (NADB).³¹

DHS's Office for Infrastructure Protection (IP) is responsible for assessing the risk to the nation's critical infrastructure and key resources.³² In July 2004, IP requested states to submit critical infrastructure and key resources information. Between July 2004 and July 2005, states identified and provided IP with data for 48,701 assets.³³ DHS used the NADB in its FY2006 grant allocation methods' asset- and geographic-based risk assessments; however the NADB was not the only list of assets that DHS used in its assessments.³⁴

Figure 1. National Asset Database Totals by Critical Infrastructure and Key Resources Sectors



Source: U.S. Department of Homeland Security, Office of Inspector General, *Progress in Developing the National Asset Database*, p. 5.

Effectiveness. State and urban area investment justifications (as part of their HSGP grant applications) were evaluated on five effectiveness criteria:

³¹ U.S. Department of Homeland Security, Office of Inspector General, *Progress in Developing the National Asset Database* (Washington: June 2006), p. 1.

³² P.L. 107-256 (Homeland Security Act), Sec. 201(d)(2).

³³ U.S. Department of Homeland Security, Office of Inspector General, *Progress in Developing the National Asset Database*, p. 6.

³⁴ *Ibid.*, p. 17.

- **RELEVANCE** — the relationship of the federal investment to the working principles of the *National Preparedness Goal*. It is also evaluated through the investment relationship to the National Priorities, TCL, state and urban area homeland security goals and objectives, and *Program and Capability Enhancement Plan* initiatives.
- **REGIONALIZATION** — the investment's ability to communicate, plan, and collaborate across first responder and emergency management disciplines and jurisdictions to use limited resources for regional homeland security solutions. The investment encourages states and urban areas to coordinate preparedness activities within and across jurisdictional boundaries by sharing costs, pooling resources, sharing risk, and increasing the value of their preparedness investments through collaborative efforts.
- **SUSTAINABILITY** — the investment's ability to sustain a target capability once the goal of the investment is achieved through the identification of funding sources beyond the current grant cycle.
- **IMPLEMENTATION APPROACH** — the investment's demonstration of the appropriate in-place combination of personnel, resources, and tools to manage the investment. It addresses priorities and delivers desirable results through appropriate expenditure of any requested funding.
- **IMPACT** — the investment's effect on risk, threat, vulnerability, and consequences of catastrophic events the applicants might face.³⁵

DHS used a peer review process to determine state and urban area *Investment Justification* effectiveness. The department states:

In FY06, more than 100 peer reviewers read the Investment Justifications and worked independently to determine a preliminary effectiveness score before convening in panels to discuss the findings of their review, develop final scores, and provide comments on each submission. The reviewers evaluated submissions based on specific criteria, including relevance, regionalization, sustainability, implementation approach, and impact. Each submission was reviewed and scored in two different ways, resulting in an average score for the Individual Investments and an overall score for the submission. DHS combined the average score of the individual Investments with the overall submission score, as determined by the peer review panel, to determine the final effectiveness score.³⁶

³⁵ U.S. Department of Homeland Security, Office for Grants and Training, *FY2006 HSGP Fact Sheet: Effectiveness Analysis* (Washington: May 2006).

³⁶ U.S. Department of Homeland Security, Office for Grants and Training, *FY2006 HSGP Fact Sheet: Allocation Methodology* (Washington: May 2006).

Combining of Risk and Effectiveness. In order to allocate federal homeland security assistance based upon relative risk and anticipated effectiveness scores, DHS grouped applicants into four categories: higher risk — higher effectiveness; higher risk — lower effectiveness; lower risk — higher effectiveness; and lower risk — lower effectiveness. DHS states that it targeted federal assistance to applicants with the greatest risk, while still funding “significant efforts undertaken by applicants in presenting effective solutions.”³⁷ Each state’s and urban area’s final funding allocation was determined by combining its risk and effectiveness scores, with two-thirds weight applied to risk, and one-third weight applied to effectiveness.³⁸

Possible Oversight Issues. Since DHS’s inception, Congress has given the department complete discretion in determining the risk and effectiveness factors used in allocating UASI funds. Additionally, Congress has given DHS discretion in determining the factors used to allocate the remaining SHSGP and LETPP total appropriations following the allocation of the guaranteed amount of 0.75% of total appropriations. Oversight of DHS’ risk-based methodology and risk-based distribution formulas may address the weights given to risk and effectiveness factors, specific threats to key assets and critical infrastructure, and plausible consequences to identified threats.

- *Issue:* Who should identify the risk and effectiveness factors to be considered?

DHS has adopted allocation methodologies as explained above, and they may be the most appropriate. DHS has opted to use two categories for risk factors, asset types and geographic attributes (see **Tables 2 and 3**). There are other approaches and factors. Examples of risk factors could include threats, homeland security capabilities, population, critical infrastructure assets, and transportation assets. In order to accurately assess the risk factors, one would need to evaluate the threats to the population, critical infrastructure, transportation, and the like, and determine the consequences of threats. Additionally, effectiveness factors such as the homeland security capabilities to prevent, respond to, and recover from terrorist attacks, and natural and technical disasters would need to be assessed. The methods of threat and vulnerability assessment suggest a variety of factors that might be used in devising risk-based funding approaches for allocating homeland security assistance to states and urban areas.

The DHS Inspector General’s report on the NADB states that IP’s data request to states generated an “abundance of unusual, or out-of-place, assets” whose criticality is not readily apparent.³⁹ Examples of “out-of-place” assets cited include a psychiatry behavioral clinic, an ice cream parlor, a Sears Auto center, and an apple

³⁷ Ibid.

³⁸ Ibid.

³⁹ U.S. Department of Homeland Security, Office of Inspector General, *Progress in Developing the National Asset Database*, p. 9.

and pork festival.⁴⁰ Additionally, the report identifies inconsistencies when comparing state-by-state asset totals.⁴¹ The DHS Inspector General states:

Several of DHS' protection programs utilize information from the NADB to help allocate resources. However, in light of the variation in reporting between various sectors and states as well as the lack of detailed information on sites, we are not confident that the NADB can yet support effective grant decision-making.⁴²

- *Issue:* What risk and effectiveness factors are most appropriate?
- *Issue:* How did DHS determine what asset types and geographic attributes to use, and how are these weighted in a state's or an urban area's risk assessment?
- *Issue:* What weight did DHS give to NADB assets, and what other sources did DHS use in determining asset risks?

In considering risk and effectiveness factors, a question arises of what criteria to use when assessing potential risk-based formula variables. Risk factors include threats, the entity threatened, and the consequences of the threat to the specified entity. The agreement of potential risk and need factors is usually considered against the following criteria:⁴³

- **VALIDITY** — Do the factors serve as measures or indicators of threats, the vulnerability of the potential target, or potential consequence if catastrophe strikes the target? For example, does higher population density indicate greater vulnerability to an attack involving a weapon of mass destruction? What attributes associated with densely populated areas (e.g., numbers of law enforcement personnel on duty, the presence of sensors, cameras, and other technology) could reduce the validity of the factor?
- **RELEVANCE** — What is the relationship between the factors and the identified items or characteristics? Is the relationship straightforward, or is it murky? For example, the total number of vehicles traveling through a mid-city tunnel would probably not be pertinent to a consideration of the risk of a hazardous material accident. The number of commercial trucks carrying hazardous material, however, would be more relevant.

⁴⁰ Ibid., p. 13.

⁴¹ Ibid., p. 9.

⁴² Ibid., p. 17.

⁴³ For a discussion of criteria for evaluating the suitability of quantitative indicators see, for example, Raymond A. Bauer, *Social Indicators* (Cambridge, MA: MIT Press, 1966). See also Anona Armstrong, "Difficulties of Developing and Using Social Indicators to Evaluate Government Programs: A Critical Review," paper presented at the 2002 Australasian Evaluation Society Conference, Nov. 2002, Wollongong, Australia.

- **RELIABILITY** — The quality of the source of the information used in a risk assessment process is relevant. For example, population data from the U.S. Census Bureau are generally regarded as reliable and are used in a variety of formulas for allocating aid grants.
- **TIMELINESS** — The currency of the data affects the quality of the discussion on potential risks. For example, daily intelligence reports that provide information on current terrorist threats would be considered more timely than monthly or quarterly reports.
- **AVAILABILITY** — If the validity of a risk factor is to be *widely* accepted, data used in a formula as a variable may need to be readily and publicly available. Intelligence information that has been classified by the federal government and not shared with state and local officials would fail to satisfy this criterion.

Additionally, DHS requires states and urban areas to identify first responder and emergency management capability enhancement and sustainment needs in the *Program and Capability Enhancement Plan*. The plan is part of their HSGP applications. As noted earlier, states and urban areas are required to submit *Investment Justifications* that detail how federal assistance would address identified homeland security needs and how the assistance would address state and urban area counter-terrorism-related capabilities. The *Investment Justifications* are then evaluated through a peer review process (administered by Booz Allen Hamilton).⁴⁴ The peer review process, the justifications, and the identified effectiveness are not publically available. Additionally, the effectiveness factors are not identified by DHS; instead states and urban areas are required to determine their individual needs and display how federal assistance would meet the needs. DHS also has to rely on information from other agencies such as the Federal Bureau of Investigation (FBI) and may not be able validate or confirm the information used in their state and urban area risk assessments.

- *Issue:* How should the risk and effectiveness factors be evaluated?
- *Issue:* Is DHS able to validate and confirm the reliability of asset types and geographic attributes it receives from other federal entities?

DHS has elected not to use a 100% risk-based formula for allocating the remainder of SHSGP and LETPP total appropriations, and not to use a 100% risk-based allocation for UASI. Instead, DHS has developed a two-part approach to determining state and urban area allocations. This approach consists of a DHS risk assessment and the state's and urban area's justification of need for funding.

⁴⁴ George Foresman, Under Secretary for Preparedness, U.S. Department of Homeland Security, statement before the House Committee on Government Reform, "Regional Insecurity: DHS Grants to the National Capital Region," June 15, 2006.

Critics may argue that by not allocating strictly on risk and by including a needs portion to the distribution method, DHS has not addressed criticisms, as from the 9/11 Commission, in its 2004 report, which advocate a purely risk-based allocation of homeland security funding. In this viewpoint, by coupling effectiveness with risk, DHS may be providing funding to states and urban areas that do not have a high risk of terrorism. Conversely, by allocating funding based on both risk and effectiveness, proponents could argue that DHS is addressing not only terrorism risks, but also a state's and an urban area's capability to address those terrorism risks.

The issue of risk- and effectiveness-based funding is being raised in oversight of FY2006 state allocations.

- *Issue:* Has DHS compared a 100% risk-based methodology against a risk and effectiveness methodology? If, so how does it change state and urban area allocations?

In the FY2006 DHS appropriations act (P.L. 109-90), Congress mandated that GAO conduct an analysis of the threat and risk factors DHS used to allocate SHSGP, LETPP, and UASI grant funds, and report on the findings by November 17, 2005, which was prior to DHS's completion of its FY2006 HSGP guidance.⁴⁵ GAO, using data and information available at the time, reviewed DHS allocation methodologies to determine (1) how DHS measured risk, (2) what risk factors were included in the methodologies and why, (3) how the risk factors were used for assessing risks for the purposes of allocating FY2006 HSGP funds, and (4) how DHS determined which risk factors had the greatest weight in the risk analysis portion of the methodologies.⁴⁶

GAO determined that DHS's risk analysis focused on terrorism, and briefed congressional committees on the results of its analysis. GAO did not issue a public report, however, due to security classification of the data used in the analysis.⁴⁷ GAO was not required to validate the methodologies, but to analyze them and report to Congress on its findings.

In December 2004, the Office of Management and Budget (OMB) issued a "Final Information Quality Bulletin for Peer Review."⁴⁸ The bulletin is applicable to all federal departments and agencies and establishes government-wide guidance on enhancing the practice of peer-review of government scientific information. OMB states that peer review can increase the quality and credibility of the scientific

⁴⁵ P.L. 109-90 (FY2006 DHS appropriations), Title III.

⁴⁶ U.S. Government Accountability Office, William O. Jenkins, Jr., Director, Homeland Security and Justice Issues, e-mail interview with author on July 7, 2006.

⁴⁷ Ibid.

⁴⁸ Executive Office of the President, Office of Management and Budget, "Final Information Quality Bulletin for Peer Review" (Washington: Dec. 2004). Legal authority for issuing the bulletin is under the Information Quality Act (P.L. 106-554, Sec. 515). For further information on OMB's bulletin on peer review, see CRS Report RL32680, *Peer Review: Proposed, Revised, and Final Bulletins*, by Curtis Copeland.

information developed by the federal government.⁴⁹ “Peer review” is characterized as

...one of the most important procedures used to ensure that the quality of published information meets the standards of scientific and technical community. It is a form of deliberation involving an exchange of judgements about the appropriateness of methods and the strength of the author’s inferences. Peer review involves the review of a draft product for quality by specialists in the field who were not involved in producing the draft.⁵⁰

The bulletin defines “scientific information” as factual inputs, data, models, analyses, technical information, or scientific assessments.⁵¹

OMB requires each federal agency to subject scientific information to peer review prior to dissemination. The bulletin provides broad discretion in determining what type of peer review is appropriate and what procedures should be employed to select appropriate reviewers.⁵²

If DHS’s FY2006 HSGP allocation methodologies were defined “scientific assessments” of terrorism risks, GAO’s review of the methodologies could be considered an independent peer review. Conversely, GAO’s review may not have been complete if GAO was not given access to all the information used in DHS’s allocation methodology or if DHS had not completed the assessment methods.

- *Issue:* Should DHS arrange an independent peer review of its allocation methodologies prior to disseminating the grant application guidance and determining state and urban area allocations?

⁴⁹ Executive Office of the President, Office of Management and Budget, “Final Information Quality Bulletin for Peer Review,” p. 1.

⁵⁰ Ibid., p. 3.

⁵¹ Ibid., p. 10.

⁵² Ibid., p. 12.

Appendix A. FY2003-FY2006 DHS Grant Allocation Methodologies

HSGP	FY2003	FY2004	FY2005	FY2006
SHSGP	<p>Guaranteed Amount Each state, DC, and Puerto Rico guaranteed 0.75% of total appropriations. [P.L. 107-56, Sec. 1014]</p> <p>Remainder of Appropriations Remainder of total appropriations at the discretion of DHS. [P.L. 108-7, P.L. 108-11]</p> <p>DHS Implementation DHS chose to allocate the remainder of total SHSGP appropriations in direct proportion of the state's percentage of the nation's population. [FY2003 SHSGP Program Guidance and Application Kit]</p>	<p>Guaranteed Amount Each state, DC, and Puerto Rico guaranteed 0.75% of total appropriations. [P.L. 107-56, Sec. 1014]</p> <p>Remainder of Appropriations Remainder of total appropriations at the discretion of DHS. [P.L. 108-90, Title III]</p> <p>DHS Implementation DHS chose to allocate the remainder of total SHSGP appropriations in direct proportion of the state's percentage of the nation's population. [FY2004 SHSGP Program Guidance and Application Kit]</p>	<p>Guaranteed Amount Each state, DC, and Puerto Rico guaranteed 0.75% of total appropriations. [P.L. 107-56, Sec. 1014]</p> <p>Remainder of Appropriations Congress required DHS to allocate the remainder of total appropriations in the same manner as FY2004. [P.L. 108-334, Title III]</p>	<p>Guaranteed Amount Each state, DC, and Puerto Rico guaranteed 0.75% of total appropriations. [P.L. 107-56, Sec. 1014]</p> <p>Remainder of Appropriations Remainder of total appropriations at the discretion of DHS. [P.L. 109-90, Title III]</p> <p>DHS Implementation DHS chose to allocate the remainder of total SHSGP appropriations based on risk and the effectiveness of the state's proposed solution to identified homeland security needs. [FY2006 HSGP Program Guidance and Application Kit]</p>
LETPP	<p>The program was not authorized through appropriations until FY2004.</p>	<p>Guaranteed Amount Each state, DC, and Puerto Rico guaranteed 0.75% of total appropriations. [P.L. 107-56, Sec. 1014]</p> <p>Remainder of Appropriations Remainder of total appropriations at the discretion of DHS. [P.L. 108-90, Title III]</p> <p>DHS Implementation DHS chose to allocate the remainder of total LETPP appropriations in direct proportion of the state's percentage of the nation's population. [FY2004 SHSGP Program Guidance and Application Kit]</p>	<p>Guaranteed Amount Each state, DC, and Puerto Rico guaranteed 0.75% of total appropriations. [P.L. 107-56, Sec. 1014]</p> <p>Remainder of Appropriations Congress required DHS to allocate the remainder of total appropriations in the same manner as FY2004. [P.L. 108-334, Title III]</p>	<p>Guaranteed Amount Each state, DC, and Puerto Rico guaranteed 0.75% of total appropriations. [P.L. 107-56, Sec. 1014]</p> <p>Remainder of Appropriations Remainder of total appropriations at the discretion of DHS. [P.L. 109-90, Title III]</p> <p>DHS Implementation DHS chose to allocate the remainder of total LETPP appropriations based on risk and the effectiveness of the state's proposed solution to identified homeland security needs. [FY2006 HSGP Program Guidance and Application Kit]</p>

CRS-23

HSGP	FY2003	FY2004	FY2005	FY2006
UASI	<p>Guaranteed Amount NA</p> <p>Remainder of Appropriations Allocation of total appropriations at the discretion of DHS. [P.L. 108-7, P.L. 108-11]</p> <p>DHS Implementation DHS allocated UASI funds based on the following indicators of risk: credible threat, presence of critical infrastructure, vulnerability, population, population density, law enforcement investigative and enforcement activity, and the existence of formal mutual aid agreements among jurisdictions.[FY2003 UASI Program Guidance and Application Kit]</p>	<p>Guaranteed Amount NA</p> <p>Remainder of Appropriations Allocation of total appropriations at the discretion of DHS. [P.L. 108-90, Title III]</p> <p>DHS Implementation DHS allocated UASI funds based on the following indicators of risk: credible threat, presence of critical infrastructure, vulnerability, population, population density, law enforcement investigative and enforcement activity, and the existence of formal mutual aid agreements among jurisdictions.[FY2004 UASI Program Guidance and Application Kit]</p>	<p>Guaranteed Amount NA</p> <p>Remainder of Appropriations Allocation of total appropriations at the discretion of DHS. [P.L. 108-334, Title III]</p> <p>DHS Implementation DHS allocated UASI funds based on the following indicators of risk: credible threat, presence of critical infrastructure, vulnerability, population, population density, law enforcement investigative and enforcement activity, and the existence of formal mutual aid agreements among jurisdictions.[FY2005 UASI Program Guidance and Application Kit]</p>	<p>Guaranteed Amount NA</p> <p>Remainder of Appropriations Allocation of total appropriations at the discretion of DHS. [P.L. 109-90, Title III]</p> <p>DHS Implementation DHS allocated UASI funds based on risk and effectiveness of urban area's proposed solutions to identified homeland security needs. [FY2006 HSGP Program Guidance and Application Kit]</p>