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**GRANT FUNDING TO STATE AND LOCAL
GOVERNMENTS AND SYSTEMATIC
ASSESSMENT OF VULNERABILITY**

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EXECUTIVE SUMMARY

The events of 9/11 highlighted the fact that first responders -- police officers, firefighters, emergency medical providers, public works personnel, and emergency management officials -- are truly “our first line of defense” against acts of terrorism.¹ Nearly three million state and local first responders regularly put their lives on the line to save the lives of others and make our country safer. Yet, while the provision of public safety is the core function of state and local governments, the events of 9/11, demonstrated that public safety is a coordination of federal, state and local efforts.² The task of properly equipping, training and exercising the nation’s first responder community is critical as well as formidable. While trained and equipped first responders have the greatest potential to prevent and prepare for terrorist attack, to save lives and limit casualties during and after a terrorist attack, first responder capabilities vary widely across the country. A report issued in July, 2004 by the National Fire Protection Association (NFPA) suggests that many areas have little or no capability to respond to a terrorist attack that uses weapons of mass destruction.³

First responder capabilities need to be placed in an economic context of how to concentrate limited homeland security resources to areas of greatest need.⁴ Neither the state nor the federal government can afford to protect every public asset or piece of critical infrastructure. Instead, funding for homeland security efforts to prevent, prepare, and respond to future acts of terrorism are dispersed across a myriad of agencies and departments across all levels of government. Yet nowhere is the call to make more efficient use of resources as important as it is in the Department of Homeland Security (DHS), the third largest executive department in the federal government and the only department with the critical mission of protecting the nation against terrorist attack.⁵

¹ Comments by C.H. Straub II, Director, Office for Domestic Preparedness, Department of Justice, in the Foreword to the 2002 ODP grant application, see Also “National Strategy for Homeland Security,” Office of Homeland Security, 2002. The term “First responder” is defined as local and nongovernmental police, fire, and emergency early stages of an incident are responsible for the protection and preservation evidence, and the environment, including emergency response providers of the Homeland Security Act of 2002 (6 U.S.C. 101), as well as emergency health, clinical care, public works, and other skilled support personnel operators) who provide immediate support services during prevention, operations. First responders may include personnel from Federal, nongovernmental organizations. (Source—NRP, December 2004)

² Kettl, Donald F. “The States and Homeland Security: Building the Missing Link” A Century Foundation Report. 2003. <http://www.tcf.org/Publications/HomelandSecurity/kettl.pdf> (last accessed 06/05)

³ Clarke, Richard A., Metz, Jamie F., and Warren B. Rudman, “Emergency Responders: Drastically Underfunded, Dangerously Unprepared” Council on Foreign Relations, (last accessed 06/05) June 29, 2003 http://www.cfr.org/pdf/Responders_TF.pdf See also National Fire Protection Association, Executive summary of “Underfunded, Understaffed, and Undertrained,” April 9 2003. (This includes an analysis of state-by-state fire department readiness for incidents including building collapse and chemical and biological events. NFPA finds that a small percent of U.S. fire departments that responded cited they were prepared for terrorist attacks of varying degrees (report last accessed 3/8/05) <http://www.nfpa.org/publicJournalDetail.asp?categoryID=&itemID=20849&src=NFPAJournal>

⁴ U.S. General Accounting Office (GAO) , Homeland Security: Reforming Federal Grants to Better Meet Outstanding Needs, GAO-03-1146T, Washington D.C., September 3, 2003.

⁵ P.L. 107-296, Homeland Security Act of 2002, Sec. 430(d)

DHS Secretary Michael Chertoff continues to emphasize that current allocations must evolve to better target areas characterized by risk to terrorism.⁶ Risk is the product of threat, vulnerability, consequence, and likelihood of occurrence. The application of risk analysis to allocation decisions is particularly relevant to grants under the “Homeland Security Grant Program” (HSGP). These grants provide resources for training, planning, equipment, and exercises to states and local jurisdictions in their efforts to prevent, plan for, and respond to acts of terrorism. Public discourse concerning the HSGP focuses on the formula used to distribute the largest monetary amount of HSGP grants, a formula which allocates funding based on a state minimum and share of population.

Public debate regarding the distribution formula centers on different perceptions of the spatial distribution of terrorism risk, where risk is defined in terms of the vulnerability, threat and consequence of terrorist attack on a particular asset. In short, terrorism risk might be uniformly distributed across States, or it can be clustered in populated areas. Opponents of the formula state that formula allocations result in decreased per capita funding for the most-populated states, such as California and New York.⁷ Conversely, supporters of current allocations state that all terrorism risk is uniformly distributed in small and large populated areas alike.⁸

This report contributes analysis and scientific methodology to the policy debate by (1) describing and analyzing current homeland security grant programs administered by the DHS Office of State and Local Government Coordination and Preparedness (SLGCP), and (2) suggesting alternative mechanisms for allocating funds based on terrorism risk. This report cites programs that were administered through the Office of Domestic Preparedness (ODP) prior to the merger between ODP and the Office of State and Local Government Coordination that formed the SLGCP.⁹ Six conclusions and suggestions are offered for future research and implementation.

⁶ Strohm, Chris, “Homeland Security Nominee vows to meet with unions”. February 2, 2005. GovExec.com: <http://www.govexec.com/dailyfed/0205/020205c1.htm> (last accessed 06/05)

⁷ Cox, Christopher, “An Analysis of First Responder Grant Funding”, Chairman, House Select Committee on Homeland Security, (2003) <http://homelandsecurity.house.gov/files/FirstResponderReport.pdf> (last accessed 3/05) with first responder funding in 2003 was \$4.23 per person in California and more than \$31.89 per person in Wyoming. The difference between California and Wyoming allocations may be overstated; redirecting Wyoming’s full allocation to California would only result in a \$0.45 per capita increase in California’s grant allocation

⁸ Earle, Geoff. “Homeland Security Funding Part 1- Money Not Flowing to the Places in Danger”. The Hill, Thursday, April 15, 2004. <http://www.newsmax.com/archives/articles/2004/4/14/163610.shtml> (last accessed 4/05)

⁹ The SLGCP now manages the State Homeland Security Grants, the Urban Areas Security Grants, and the Port Security Grants, formerly managed by the Transportation Security Administration.

Key Conclusions

- Any proposed risk-based solution for allocating funding will require a nation-wide systematic assessment of risk and vulnerability.
- The development of a nation-wide standardized methodology for assessing terrorism risk must include evaluation of state-wide “best practices”.
- The development of a risk assessment methodology naturally extends beyond identifying targets and requires estimation of probabilities and consequences to guide funding decisions.
- Given the mission of first responder grant funding, it is critical that investment is uniformly distributed across functions to prevent, deter, respond to and recover from threats and incidents of terrorism.
- Any risk-based solution must engage both private sector stakeholders and public sector elected stakeholders.
- Analysis of grant funding naturally extends to portfolios of other Homeland Security investments.

This is the first of a series of reports completed in 2005 and 2006 by CREATE on focal issues regarding funding allocation.

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1. INTRODUCTION

The objective of this report is to propose alternatives for allocating SLGCP homeland security grants in an effort to reduce inefficiencies intrinsic to the current allocation mechanism. Since the terrorist attacks of September 11, 2001, considerable political discussion has centered on how to concentrate limited homeland security funds to areas of greatest need. Controversy surrounds the funding formula used to allocate funding to aid state and local governments. Under the current grant program authorized by the Patriot Act of 2001, each state receives a lump sum and an additional amount based on its share of national population. Republicans and Democrats in Congress criticize the allocations that their states receive, stating that the federal formula does not reach areas in “need”. To be sure, each State has a unique perspective of risk to terrorism yielding fifty different interpretations of “need” according to different possible loss scenarios.

The problem is that, similar to a State’s representation in Congress, the grant formula is a political solution to funding counter-terrorism needs, and does not explicitly address varying vulnerabilities for terrorism across States. It is possible that States with more influence in Congress receive more funds, and states with less influence and perhaps more vulnerability to terrorism receive fewer funds. Several questions emerge. For instance, what is the purpose and goal of the current homeland security programs? What is accomplished? What is the role of local and state government? Finally, if the current formula were to be redesigned, what are the necessary criteria for the development of a methodology for systematically assessing risks and vulnerabilities? This report aims to address these timely questions.

This is the first in a series of reports on methods for allocating budgets among homeland security portfolios, as part of CREATE’s case study series. This report is divided into four sections. Chapter 2 introduces and describes the current homeland security grant program, setting the background for a discussion of grants and funding options. Legislative proposals to alter the current funding formula are presented. Chapter 3 applies public finance concepts to the grant program in an effort to determine whether formula grants are appropriate for aligning the incentives of local, state, and federal government actors. Chapter 4 presents resources for creating a risk-based methodology for fund allocation. Chapter 5 presents concluding remarks, future areas of research, and suggestions on how to bring together the capabilities found within and among DHS Centers for Excellence to meet this complex objective.

2. CURRENT HOMELAND SECURITY ALLOCATIONS TO STATE AND LOCAL GOVERNMENTS

Introduction

While homeland security grant programs administered by the DHS SLGCP differ in scope and design, these grants have a collective purpose – to provide funding for “planning, equipment, training, exercises, program management and administration to enhance the ability of states, territories, urban areas, and local agencies to prevent, deter, respond to, and recover from threats and incidents of terrorism.”¹⁰ This chapter begins by providing the historical context for current grant programs and formulas used to distribute funding to state and local governments. SLGCP programs are placed in perspective with other DHS homeland security funding initiatives. The chapter concludes by comparing proposed legislation that seeks to redesign DHS SLGCP grant programs.

2.1 Overview of Department of Homeland Security Homeland Security Grants

The Homeland Security Grant Program: From Past to Present

It is important to place current homeland security grant spending in a historical context. Elements of the Federal grant funding apparatus for the Homeland Security Grant Program were in place before 9/11. In 1998, the Attorney General delegated authority to the Office of Justice Programs (OJP) to develop and administer training and equipment assistance programs for state and local emergency response agencies and personnel to better prepare them against the threat of terrorism. To facilitate this mission, the Office of Justice Programs established the Office of Domestic Preparedness (ODP) to develop and administer a national Domestic Preparedness Program.

The ‘State and Local Domestic Preparedness Equipment Support Program’ began in 1998 with a budget of \$12 million to provide equipment acquisition funds and training funds through a competitive award process to 41 eligible county and local jurisdictions. Funds were made available to States for the purchase of specialized equipment for fire, emergency medical, hazardous materials response services, and law enforcement agencies. These funds were to be used to enhance the capabilities of State and local units of government to respond to acts of terrorism involving chemical and biological agents, as well as radiological, nuclear, and explosive devices. This program is the precursor to the State Homeland Security Grant Program (SHSP).

In 1999, the ‘State and Local Domestic Preparedness Equipment Support Program’ implemented a formula to distribute funds to first responders in all 50 states in their effort to prevent, prepare and respond to acts of terrorism. In this way, \$51.8 million was made available to individual States under the fiscal year 1999 Program: \$8 million was

¹⁰ FY2005 HSGP Application Kit. Incidents of terrorism include those involving chemical, biological, radiological, nuclear and explosive incidents

distributed to support State planning efforts and \$43.8 million was available to support equipment purchases.¹¹ After 9/11, in 2001, Congress passed the USA Patriot Act codifying elements of the State Domestic Preparedness Equipment Program formula that had been used until that time by ODP to allocate previous grants. The program, entitled “Grant Program for State and Local Preparedness Support,” was designed “to enhance the capability of State and local jurisdictions to prepare for and respond to terrorist acts, including events of terrorism involving weapons of mass destruction and biological, nuclear, radiological, incendiary, chemical, and explosive devices.”¹²

The Patriot Act codified the funding mechanism in place before 9/11, allocating funding to all U.S. States and territories using a two-part formula whereby each State first receives a fixed amount. In the absence of statutes or congressional guidance, DHS decided to allocate the remaining appropriations in direct proportion to the ratio of the state’s population to the total national population. Grants are currently determined using the same formula in place before 9/11. The formula distributes a base amount of 0.75 % of the total allocation to states (including the District of Columbia and the Commonwealth of Puerto Rico) and 0.25 % of the total allocation to U.S. territories (Guam, American Samoa, U.S. Virgin Islands, Northern Mariana Islands), with the balance of funds being distributed on a population-share basis (using U.S. Census bureau 2002 population figures). Upon passage of the Homeland Security Act of 2002¹³, the ODP was transferred to the Department of Homeland Security from OJP. Despite the transfer of the SHSP from the DOJ to the DHS, the formula for distributing funds remained intact.

Beginning in fiscal year 2002, and directly in response to 9/11, the State Domestic Preparedness program grew in monetary funding.¹⁴ Fiscal year 2002 grants were allocated to all states and divided into funding for training, equipment, and planning for acts of terrorism. These grants included funding (1) for the purchase of specialized equipment to enhance the capability of state and local agencies to respond to incidents of terrorism involving the use of weapons of mass destruction (WMD), (2) for the protection of critical infrastructure, (3) for costs related to the design, development, conduct and evaluation of WMD exercises, and (4) for administrative costs associated with the implementation of the statewide domestic preparedness strategies.

Further changes to the grant program emerged in fiscal years 2003-2005. In 2003, the ‘State and Local Domestic Preparedness Equipment Support Program’ changed in name and in scope. The program became the ‘State Homeland Security Grant Program (SHSP)’, subsuming the two previously existing programs and adding funding for first

¹¹U.S. Department of Homeland Security, Fiscal Year 1999 State Domestic Preparedness Equipment Program Application Kit, <http://www.ojp.usdoj.gov/odp/library/bulletins.htm#grants> (last accessed 1/27/05).

¹² Patriot Act, Sec. 1014, 42 U.S.C. 3711.

¹³ Public Law 107-296

¹⁴ Public Law 107-77, the Departments of Commerce, Justice, and State; the Judiciary; and Related Agencies Appropriations Act of 2002; Public Law 107-117, the Department of Defense and Emergency Supplemental Appropriations for Recovery and Response to Terrorist Attacks on the United States Act of 2002; Public Law 107-56, the USA Patriot Act of 2001.

responder preparedness (training) and critical infrastructure preparedness (planning). Another significant change emerged in 2003 with the introduction of a new grant program, the Urban Areas Security Initiative.

The UASI program provides discretionary grants to provide financial assistance to address the unique planning, equipment, training, and exercise needs of high-threat, high-density urban areas, and to assist them in building an enhanced and sustainable capacity to prevent, respond to, and recover from threats or acts of terrorism. In fiscal year 2003, grants were directed to 7 selected U.S. urban areas¹⁵; the second stage of 2003 UASI funding provided financial assistance to 30 additional urban areas.¹⁶ UASI grants are project grants (not bound by a state minimum) and involve discretionary decisions by DHS federal agency officials on a project basis for specific geographic locations, incidents or programs.¹⁷ According to the grant application materials, funding for the 2004 UASI Program was determined by a formula using a combination of current threat estimates, critical assets within the urban area, and population density.¹⁸ The formula is a weighted linear combination of each factor, the result of which is ranked and used to calculate the proportional allocation of resources.

Other grants emerged as applicable to certain infrastructure, such as grants directed to specific transit systems and ports, the UASI Transit System Security Grant Program (UASI Transit), and the UASI Port Security Grant Program (UASI Port).¹⁹ Twenty mass transit systems were identified to receive funding through the UASI Transit program, using a formula based upon ridership and total route miles, using only heavy rail and commuter rail systems. The UASI Port program provided funds for 14 port authorities. Although administered by the SLGCP, the UASI Port program has been coordinated with the Transportation Security Administration (TSA), which originally reviewed and selected project proposals identified for funding. Port funding is based upon identifying high threat ports in the country and certain Liberty Shield port areas.

In 2004, the DHS altered the SHSP program in two significant ways. First, the SHSP added funding for two new programs, the LETPP program, and the CCP. The LETPP program provides law enforcement communities with funds for: (1) information sharing to preempt terrorist attacks, (2) target hardening to reduce vulnerability of selected high value targets, (3) threat recognition to recognize the potential or development of a threat,

¹⁵ UASI is authorized by Public Law 108-7, the Omnibus Appropriations Act of 2003; Grants to Los Angeles, San Francisco, New York City, Chicago, National Capital Region, Houston, and Seattle, Authorized by the Consolidated Appropriations Resolution of 2003

¹⁶ Authorized by the 2003 Emergency Wartime Supplemental Appropriations Act (DHS, 2003).

¹⁷ The UASI Grant Application Kit for FY 2004 funds provides insight as to how UASI grant recipients are selected by the Federal government.

¹⁸ The DHS Homeland Security Grant Program Application Kit for FY 2004

¹⁹ DHS, <http://www.dhs.gov/dhspublic/display?theme=10&content=2979&print=true> (last accessed 6/8/04) The 2003 Emergency Wartime Supplemental Appropriations Act also provided funding for two additional UASI programs, targeting ports and mass transit systems with heavy rail and commuter rail components. The Department of Homeland Security Appropriations Act of 2004 provided the Secretary of Homeland Security \$725,000,000 for discretionary grants for use in high threat, high-density urban areas. The Secretary has provided \$675,000,000 to enhance the security of key urban areas and \$50,000,000 for the protection of critical mass transit systems with heavy rail and commuter rail components.

(4) intervention activities to interdict terrorists before they can execute a threat, (5) interoperable communications; and (6) management and administration. Funds can be used for these activities within the areas of planning, organization, equipment, training, and exercises.²⁰

The objective of the CCP is to actively involve all citizens in hometown security through personal preparedness, training, and volunteer service. CCP funds will be used to support Citizen Corps Councils with efforts to engage citizens in preventing, preparing for, and responding to all hazards, including planning and evaluation, public education and communication, training, participation in exercises, providing proper equipment to citizens with a role in response and management of volunteer programs and activities.

In 2005, the administration of SHSP, LETPP, CCP, and UASI grants was combined into one grant application with two additional programs coming under SLGCP -- the MMRS program and EMPG program. MMRS was created in 1996 and comes to the DHS/ODP from former placement under the Emergency Preparedness and Response Directorate (EP&R) of the DHS. The MMRS program funds highly populated jurisdictions (originally 27, today it is 125 through fiscal year 2003) to develop plans, conduct training and exercises, and acquire pharmaceuticals and personal protective equipment, to achieve the enhanced capability necessary to respond to a mass casualty event caused by a weapons of mass destruction (WMD) event, with their locally controlled and operated resources, until significant external resources arrive. The focus here is on preparing local law enforcement, fire, hazmat, EMS, hospital, public health, and other "first response" personnel to more effectively respond in the first 48 hours of a public health crisis.²¹ While MMRS funding is noncompetitive and based on population and threat assessment, only currently established MMRS local jurisdictions are eligible for funding.

The EMPG program provides funding to states to structure individual emergency management programs based on identified needs and priorities for strengthening their emergency management capabilities. The current program is primarily a formula grant providing support for essential expenses including salaries, benefits, equipment, supplies, maintenance of facilities, and other necessary costs of state and local emergency management departments and agencies. States have the flexibility to develop intrastate emergency management systems that encourage the building of partnerships which include government, business, volunteer, and community organizations. The EMPG program is a matching grant program requiring a 50% federal and 50% state cost-share cash or in-kind match requirement.²²

²⁰ (http://www.ojp.usdoj.gov/odp/grants_programs.htm) (last accessed 1/27/05).

²¹ Key components of the MMRS program require activation/notification procedures, a concept of operations plan, the forward movement of patients (coordinated with [using] the National Disaster Medical System), hospital and healthcare system surge capacity management, the provision of specially trained responders and equipment through exercises and drills, public information dissemination, coordination response protocols, a bioterrorism plan including customized pharmaceuticals, and plans for the prophylaxis of an affected population for up to 1,000 chemical victims, and 10,000 biological victims. See MMRS Press Room at <http://mmrs.fema.gov/Main/Pressroom.aspx> (last accessed 1/27/05)

²² In accordance with federal guidelines and DHS Office of General Counsel (OGC) rulings, match requirements are waived for the U.S. Territories of American Samoa,

Table 1 presents the evolution of grant programs administered by SLGCP from 2002 to 2005. The Homeland Security Grant Program, which began as the State Domestic Preparedness Program in 1998, currently encompasses the six grant programs (or HSGP ‘sub-grants’): the SHSP, UASI, LETPP, EMPG, CCP and MMRS. Table 2 outlines the HSGP as a combination of six grant programs. While the programs share the same goal, the programs themselves differ in terms of statutory design and distribution of funds. To receive funding for any of the six programs listed, individual States submit one application to the DHS, in lieu of several grant applications that were required in the past.²³

Guam, the Virgin Islands, and the Commonwealth of the Northern Mariana Islands (DHS, 2004).

²³ Prior to FY2005, ODP offered that assistance through six separate grant programs. Some state and local officials, however, criticized the fragmentation of homeland security assistance and recommended streamlining the grant process. Subsequently, ODP recommended and — pursuant to Section 872 of the Homeland Security Act (P.L. 107-296), which authorizes the DHS Secretary “to allocate, reallocate, and consolidate functions and organization units within the Department” — DHS Secretary Ridge approved consolidating the separate programs into a single Homeland Security Grant Program (HSGP). Within the consolidated program, however, the six types of assistance continue to have their separate identities and funding allocations as “sub-grants.”

Table 1: Department of Homeland Security, Office of State and Local Government Coordination and Preparedness (formerly ODP) Programs for State and Local Governments (in thousands of dollars)

	FY 2002	FY 2003		FY 2004		FY 2005
DHS/SLGCP Program	State Domestic Preparedness Program	State Homeland Security Grant Program	UASI Program	Homeland Security Grant Program	UASI Program	Homeland Security Grant Program
Equipment Acquisition Funds	301,700	397,400	-	-	-	-
Exercise Funds	14,000	99,350	-	-	-	-
Training Funds	-	29,805	-	-	-	-
Planning Funds	-	39,740	-	-	-	-
First Responder Preparedness	-	1,300,000	-	-	-	-
Critical Infrastructure Preparedness	-	200,000	-	-	-	-
SHSP	-	-	-	1,685,000	-	1,062,285
LETPP	-	-	-	500,000	-	386,286
CCP	-	-	-	35,000	-	13,486
MMRS	-	-	-	-	-	28,221
EMPG	-	-	-	-	-	173,828
UASI	-	-	596,35	-	675,000	854,657
UASI transit	-	-	64,024	-	-	-
UASI port	-	-	75,000	-	-	-
UASI-Other	-	-	-	-	-	-
TOTAL	315,700	2,758,997		2,895,000		2,518,763

Source: Department of Homeland Security, ODP, Application Kits for Fiscal Year funding for 2002-2005
Notes: UASI-Other includes the following 11 grant programs: Counterterrorism Institute Grant Program, TOPOFF II, Washington Metropolitan Area Transit Authority, Airborne Imaging in Support of Emergency Operations, Testing and Evaluation of Emergency Response Equipment, Terrorism Early Alert and Strategic Planning System, Homeland Defense Equipment Reuse Program, Northern Virginia Emergency Response Coalition Grant Program, Domestic Preparedness Equipment Training Technical Assistance Program, National Domestic Preparedness Consortium, and Multi-state Anti-Terrorism Information Exchange Project.

Table 2: Selected Department of Homeland Security Grant Programs

Program Title	Program Description	Program Recipient	Program Formula	Program Authorization
<p>SHSP: State Homeland Security Grant Program (CFDA 97.004)</p>	<p>Formula Grant Program providing financial assistance directly to each of the states and territories to prevent, respond to, and recover from acts of terrorism. SHSP supports the implementation of the State Homeland Security Strategy (SHSS) to address the identified planning, equipment, training, and exercise needs. In addition, SHSP supports the implementation of the NIMS, Homeland Security Presidential Directive (HSPD) 8: National Preparedness, and the National Response Plan (NRP). Begins '02</p>	<p>States, local units of government</p>	<p>A base amount of .75 % of the total allocation to the states (including D.C. and Puerto Rico) and .25 % of the total allocation for the territories, with the balance of funds being distributed on a population-share basis.</p>	<p>State Domestic Preparedness Equipment Support Program and the USA Patriot Act of 2001, (Public Law 107-56)</p>
<p>LETTP: Law Enforcement Terrorism Prevention Program (CFDA 97.074)</p>	<p>Formula Grant Program which provides law enforcement communities funding to support prevention activities: (1) information sharing to preempt terrorist attacks; (2) target hardening to reduce vulnerability of selected high value targets; (3) recognition and mapping of potential or developing threats; (4) counterterrorism and security planning; interoperable communications; (4) interdiction of terrorists before they can execute a threat or intervention activities that prevent terrorists from executing a threat. These funds may be used for planning, organization, training, exercises, and equipment. Begins '04</p>	<p>State and local units of government</p>	<p>A base amount of .75 % of the total allocation to the states (including D.C. and Puerto Rico) and .25 % of the total allocation for the territories, with the balance of funds being distributed on a population-share basis.</p>	<p>U.S.A. Patriot Act of 2001, Public Law 107-56, and by the DHS Appropriations Act of 2005, Public Law 108-334</p>
<p>CCP: Citizen Corps Program (CFDA 97.053)</p>	<p>Formula Grant Program and grass-roots initiative to actively involve all citizens in hometown security through personal preparedness, training, and volunteer service. CCP funds are used to support Citizen Corps Councils to engage citizens in preventing, preparing for, and responding to all hazards, including planning and evaluation, public education and communication, training, participation in exercises, providing proper equipment to citizens with a role in response and management of Citizen Corps volunteer programs and activities. Begins '04</p>	<p>State and local units of government</p>	<p>A base amount of .75 % of the total allocation to the states (including D.C. and Puerto Rico) and .25 % of the total allocation for the territories, with the balance of funds being distributed on a population-share basis.</p>	<p>Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), 42 U.S.C. 5121 – 5206 and the Appropriations Act to Fiscal Year 2004, Public Law 108-106</p>

Table 2: (Continued) Selected Department of Homeland Security Grant Programs

Program Title	Program Description	Program Recipient	Program Formula	Program Authorization
<p>UASI: Urban Area Security Initiative (CFDA 97.008)</p>	<p>Project (Discretionary) grant program which Provides financial assistance directly to urban areas to address the unique planning, equipment, training, and exercise needs of high risk urban areas, and to assist them in building an enhanced and sustainable capacity to prevent, respond to, and recover from threats or acts of terrorism. Allowable costs for the urban areas comport with the FY05 SHSP, and funding is expended based on the Urban Area Homeland Security Strategies. Funds are also available to protect nonprofit organizations located within the urban areas. Begins '03</p>	<p>Selected cities and states chosen by the Secretary of DHS</p>	<p>Formula based on credible threat, presence of critical infrastructure, vulnerability, population, population density, law enforcement investigative and enforcement activity, and the existence of formal mutual aid agreements.</p>	<p>Public Law 108-90, DHS Appropriations Act of 2004</p>
<p>UASI-TRANSIT: Urban Areas Security Initiative - Transit System Security Grant Program (CFDA 97.008)</p>	<p>Project (Discretionary) grant program which provides funding to Twenty mass transit systems. This component of the UASI Program was intended not only to address security needs at critical infrastructure facilities but also to promote comprehensive regional planning and coordination. Although administered by ODP, the UASI Transit System Security Grant Program has been coordinated with the Transportation Security Administration and the Department of Transportation's Federal Transit Administration. Begins '03</p>	<p>Selected mass transit systems chosen by the Secretary of DHS</p>	<p>Non-supplanting certification required.</p>	<p>Public Law 108-11, the Emergency Wartime Suppl. Appropriations Act, 2003, and augments efforts begun with the FY 2003 UASI Program to address the unique needs of large urban areas.</p>
<p>UASI-PORT: Urban Areas Security Initiative – Port Security Grant Program (CFDA 97.008)</p>	<p>Project (Discretionary) grant program which provides funding to enhance security at selected ports in the country and certain Liberty Shield port areas. Although administered by ODP, the UASI Port Security Grant Program has been coordinated with the Transportation Security Administration. Begins '03</p>	<p>State and local government entities and commercial companies to enhance security at selected ports</p>	<p>Non-supplanting certification required.</p>	<p>Public Law 108-11, the Emergency Wartime Suppl. Appropriations Act, 2003, and augments efforts begun with the FY 2003 UASI Program to address the unique needs of large urban areas.</p>

Table 2: (Continued) Selected Department of Homeland Security Grant Programs

Program Title	Program Description	Program Recipient	Program Formula	Program Authorization
<p>EMPG: Emergency Management Performance Grants (CFDA 97.042)</p>	<p>Formula Grant Program providing support to comprehensive emergency management and to encourage the improvement of mitigation, preparedness, response, and recovery capabilities for all hazards. DHS is responsible for leading and supporting the nation in a comprehensive, risk-based, all-hazards emergency management program. A primary means of ensuring the development and maintenance of such a program is funding to states through EMPG. Funds provided under EMPG may also be used to support activities that contribute to the capability to manage consequences of acts of terrorism. Begins '05</p>	<p>State and local units of government</p>	<p>For each state, a target allocation is derived by calculating the same proportion of available funds as the state received the prior year. A matching requirement is calculated for each state. Each recipient's cost share percentage will increase by 1% over the prior year until the 50/50 level is reached</p>	<p>(1)Depts. Veterans Affairs, Housing & Urban Dev't, & Indep. Agencies Appropriations Act, 2000, P.L.106-74 (2) 38 U.S.C. 301, (3) Robert T. Stafford Disaster Relief & Emergency Assistance Act, as amended, Title II, Sec. 201(d), Title VI, Sec. 611&613, 42 U.S.C. 5196 and 5196(b), (4) P.L. 93-288, as amended, (5) 42 U.S.C. 5121 et seq., 42 U.S.C. 5195 et. seq.</p>
<p>MMRS: Metropolitan Medical Response System</p>	<p>Project grants supporting MMRS jurisdictions to further enhance and sustain their integrated, systematic mass casualty incident preparedness to respond to mass casualty events during the first hours of a response, the time crucial to lifesaving and population protection, until significant external assistance can arrive. Provide the planning, organizing, training, and equipping concepts, principles, and techniques, to enhance local jurisdictions' preparedness to respond to CBRNE events to epidemic outbreaks, natural disasters & large-scale hazardous materials incidents. Begins '05</p>	<p>State and local units of government</p>	<p>Non-supplanting certification required.</p>	<p>Public Law 104-201, the National Defense Authorization Act for FY 1997.</p>

Source (s): U.S. General Accounting Office, HOMELAND SECURITY Reforming Federal Grants to Better Meet Outstanding Needs,

GAO-03-1146T (Washington, D.C.:Sept. 3, 2003); DHS, Homeland Security Grant Program, Application Kit, 2005, http://www.dhs.gov/dhspublic/interapp/editorial/editorial_0565.xml (last accessed 3/07/05)

CFDA: Catalog of Federal Domestic Assistance Reference Number

2.2. Scope of Homeland Security Grant Programs for First Responders

Sources of federal homeland security funding for first responders can be found in the following six agencies: Departments of Homeland Security (DHS), Defense (DOD), Energy (DOE), Health and Human Services (HHS), Justice (DOJ), and Transportation

(DOT), and the Environmental Protection Agency. Today, within the DHS, the Office of State and Local Government Coordination and Preparedness (SLGCP), (formerly ODP), has the primary responsibility for preparing for potential terrorist attacks and is the principal DHS agency providing counter-terrorism and WMD training to states and localities.²⁴ Table 2 outlines the eligible activities and applicants for first responder grant programs in these agencies. Each Department and agency provides specific counter-terrorism training targeted to federal, state, and local government personnel, emergency responders, and private and public critical infrastructure personnel.

Table 3 presents homeland security funding across different Departments. While the largest component of federal spending on homeland security is contained within DHS, the DHS homeland security request for fiscal year 2006 accounts for approximately 54% of total federal funding for homeland security.²⁵ It is important to note that the legacy agencies that became a part of DHS also conduct activities that are not homeland security related. In addition, other DHS directorates provide funding for first responders, but not specifically for homeland security purposes. For example, the Federal Emergency Management Agency (FEMA) provides the Assistance to Firefighters Program, Urban Search and Rescue, Emergency Operations Centers and Interoperable Communications, and the National Disaster Medical System. The Transportation Safety Administration (TSA) provides funding for highway, aviation, ports, bus and maritime security, the U.S. Fire Administration (part of FEMA) administers grants directly to local fire departments. The Science and Technology Directorate provides funds for research and development, scholarships, fellowships. Finally, the Homeland Security Advanced Research Projects Agency provides research and development primarily to private firms for rapid development of prototypes. Thus, while the fiscal year 2006 budget requests a total homeland security budget authority of \$27.3 billion for DHS, the requested gross budget authority is reported as \$41.1 billion.²⁶

According to Table 3, the DHS provides assistance for a wide range of eligible activities, among which are planning, training, equipment acquisition, and exercises. In terms of training, DHS has the most inclusive training program for first responders.²⁷ Other department programs focus either on specific critical infrastructure sectors, such as energy and transportation, or on specific emergency responders such as HHS training for medical personnel and DOJ training for law enforcement personnel. DHS offers training to a wide range of critical infrastructure personnel, law enforcement and other emergency responders, government (federal, state, and local) personnel and medical personnel. The primary stakeholders in responding to terrorist attacks, and thus the recipients of counter-terrorism training, are federal, state, and local governments; private and public medical systems; and critical infrastructure administrators. DHS programs train individuals to prepare for, respond to, and recover from terrorist attacks. According to Table 4,

²⁴ P.L. 107-296, Homeland Security Act of 2002, Sec. 430(d).

²⁵ CRS Report, "The Homeland Security Department FY2006 Appropriations".

²⁶ Ibid.

²⁷ CRS Report for Congress, "Federal Counter-Terrorism Training: Issues for Congressional Oversight" May 16, 2005. Shawn Reese. Report #RL32920

Table 3: Eligible Activities and Applicants for Selected Federal Homeland Security Assistance Programs

Program	Eligible Activities					Eligible Applicants
	Planning	Personnel	Equipment	Training	Exercises	
<u>DHS</u>						
State Homeland Security Grant	•		•	•	•	States
Urban Area Security Initiative	•	•	•	•	•	(Note 1)
Assistance to Firefighters			•	•		Individual Fire Departments
Community Emergency Response Teams				•		States
Law Enforcement Terrorism Prevention		•	•			States
Emergency management Performance Grants	•	•	•	•	•	States
Urban Area and Rescue Task Forces			•	•		(Note 2)
Emergency Management Institute				•		States
National Fire Academy				•		State and Local Governments
<u>DOD</u>						
U.S. Army Medical Research Institute of Infectious Diseases				•		State and Local Governments
<u>DOE</u>						
Homeland Defense Equipment Reuse Program			•			Local Governments
<u>HHS</u>						
Public Health Preparedness and Response to Bioterrorism Program	•		•	•		States and Selected local Governments
Bioterrorism Hospital Preparedness Program	•	•	•	•		States and Selected local Governments
<u>DOJ</u>						
State and Local Anti-Terrorism Training Program				•		State and Local Governments

Source: DHS, DOD, DOE, HHS, DOJ.

Note 1: The Urban Area Security Initiative program is a discretionary grant program; DHS selects the recipients, through risk and threat assessments.

Note 2: 28 Federally recognized Urban Search and Rescue Task Forces receive direct funding from DHS without an application. Not other urban search and rescue task forces receive grant funding from this program. Note: As defined in the Conference Report accompanying the Department of Homeland Security Appropriations Act of 2005, the term “local unit of government” means “any county, city, village, town, district, borough, port authority, transit authority, intercity rail provider, commuter rail system, freight rail provider, water district, regional planning commission, council of government, Indian tribe with jurisdiction over Indian country, authorized tribal organization, Alaska Native village, independent authority, special district, or other political subdivision of any state.”

Table 4: Federal Homeland Security Funding by Agency, FY2002-FY2006 (Budget authority in millions of dollars)

Department	FY02	FY03	FY04	FY05	FY06 est.	FY06 as % of total
Department of Homeland Security (DHS)	17,380	23,063	22,923	24,887	27,333	54.1%
Department of Defense (DOD)	5,159	8,442	7,024	8,570	9,514	19.0%
Department of Health and Human Services (HHS)	1,913	4,144	4,062	4,231	4,407	8.8%
Department of Justice (DOJ)	2,143	2,349	2,180	2,678	3,104	6.2%
Department of Energy (DOE)	1,220	1,408	1,364	1,562	1,666	3.3%
Department of State (DOS)	477	634	696	824	938	1.9%
Department of Agriculture (AG)	553	410	411	600	704	1.4%
Department of Transportation (DOT)	1,419	383	284	182	192	0.4%
National Science Foundation (NSF)	260	285	340	342	344	0.7%
Other Agencies	2,357	1,329	1,550	2,129	1,741	3.5%
Total Federal Budget Authority	32,881	42,447	40,834	46,005	49,943	100%

Source: CRS analysis of data contained in “Section 3. Homeland Security Funding Analysis,” and Appendix K of the Analytical Perspectives volume of the FY2006 President’s Budget (For FY2004-2006); Section 3. “Homeland Security Funding Analysis,” of Analytical Perspectives volume of the FY2005 President’s Budget (for FY2003); and Office of Management and Budget, 2003 Report to Congress on Combating Terrorism, Sept. 2003., p. 10.

Note: Totals may not add due to rounding. FY totals shown in this table include enacted supplemental funding. Year to year comparisons using particularly FY2002 may not be directly comparable, because as time has gone on agencies have been able to distinguish homeland security and non-homeland security activities with greater specificity.

Following DHS, the top four agencies in homeland security and their percentage share of all federal spending on homeland security is: DOD (19%), HHS (8.8%), DOJ (6.2%), and DOE (3.3%). Collectively, these five agencies account for 95% of all federal spending on homeland security.

Dollar Amount and Grant Program Distribution of DHS Funding

By 2002, a \$51.8 million dollar program in 1999 was transformed into a \$315.7 million dollar program. Today, the SHSP program ranks among the top 50 largest-dollar amount federal formula grant programs.²⁸ Yet, the grant application has changed since the onset of the program. According to Figure 1 Congress appropriates funds to SLGCP (formerly ODP) who then allocates funding to states that have completed applications. SLGCP awards funds to states, and then the states "sub-grants" funds to local governments. The SHSP designates that 80 % of the state's grant be distributed to local governments within 60 days. Funding awards are not immediate. A time lag exists between the initial commitment of funds to the state and/or the local government, and the deposit of funds into state and/or local accounts.

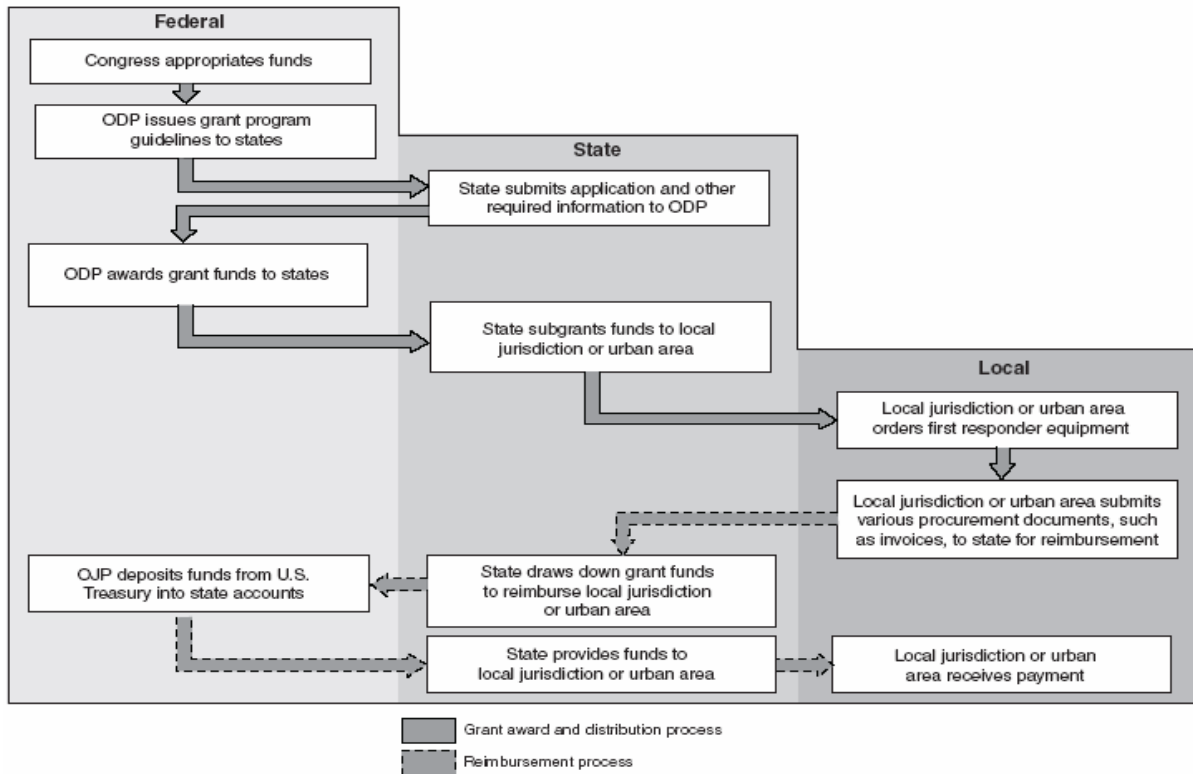
From 2002 to 2005, the SHSP (under the various titles) has been the primary funding mechanism for states and local government first responders among other funding mechanisms in the DHS/SLGCP Homeland Security Grant Program. Over time, however, the proportion of SHSP program funding within the HSGP aggregate has decreased. In 2003 the SHSP represented 71% of HSGP funding, while in 2004 the SHSP represented 42% of grant funding. Examining averages across all states, in 2003 SHSP represented 86% of HSGP funding; in 2004 SHSP represented 85% of HSGP funding; in 2005 the SHSP represented 53% of grant funding.

The fact that the average percentages are higher than the total percentages is reflected in the fact that some states received the same level of SHSP funding for all years. The fact that on average only 53% of funding came from SHSP means that more states receiving other types of grants. The decrease in funding levels for the SHSP program has been paralleled by decreases in 40/60 formula grant funding programs in the HSGP (the SHSP, CCP, and LETPP). In 2004, 40/60 formula programs represented 77% of funding in the HSGP, while in 2005, this percentage fell to represent 58% of HSGP funding.²⁹ According to Table 5, funding for the SHSP program represents 42% of the 2005 DHS/SLGCP \$2.5 Billion Homeland Security Grant Program. Table 14 in the Appendix illustrates the distribution of funding for all 50 states for fiscal year 2005 for all grant programs in total and per capita terms. Also in the Appendix, Tables 15 and 16 present the recipient jurisdictions for MMRS and UASI funding.

²⁸ Kane, M. "Northeast-Midwest Guide to Federal Grant Programs." Northeast-Midwest Institute, November, (2001).

²⁹ The fact that dollar amount for formula grants is decreasing while the dollar amount for UASI grants is increasing can be seen in Congressional Appropriations for the SHSP program: \$2.06 billion, \$2.2 billion, and \$1.02 billion in fiscal years 2003, 2004 and 2005, respectively (DHS, 2004).

Figure 1: SHSP and UASI Grant Award, Distribution, and Reimbursement Process



Source: General Accounting Office, "Homeland Security: Management of First Responder Grant Programs Has Improved but Challenges Remain", GAO-05-121. February, 2005. p. 11

Table 5: FY2005 Department of Homeland Security, Office of Domestic Preparedness, \$2.5 Billion Homeland Security Grant Program

Program Abbreviation	Program Title	Amount (\$)	Percent of Total
SHSP	State Homeland Security Grant Program	1,062,285,226	42%
UASI	Urban Area Security Initiative	854,656,750	34%
LETPP	Law Enforcement Terrorism Prevention Program	386,285,537	15%
CCP	Citizen Corps Program	13,485,708	1%
EMPG	Emergency Management Performance Grants	173,828,492	7%
MMRS	Metropolitan Medical Response System	28,221,408	1%
		2,518,763,121	100%

Source: U.S. Department of Homeland Security, Office of Domestic Preparedness, Fiscal Year 2005 Homeland Security Grant Program, Program Guidelines and Application Kit.

Distribution of Spending

Given the six HSGP grant programs and the eligible activities that the grants support, the question becomes, are jurisdictions meeting the goals of enhancing their capability to prevent, prepare for and respond to acts of terrorism? It is difficult to measure effectiveness of grant spending. To date, several studies have measured grant effectiveness by measuring whether and to what extent local governments have received grant funds. Reports state that management of first responder grant programs has improved but challenges remain.³⁰

Another way to measure the effectiveness of grant funding is to examine how jurisdictions are spending their grant funding. Table 6 presents the findings for three surveys conducted by independent organizations on spending patterns in 2004. According to a survey of core counties, conducted by the National Association of Counties and a survey of cities conducted by the U.S. Conference of Mayors, both SHSP and UASI funding is being used for the purchase of equipment, and then for the purchase of training. Yet, there is no study pointing to what extent state and local spending addresses the three goals articulated above.

Table 6: Survey Questionnaires Eliciting the Effectiveness of HSGP Grants

Survey Questionnaire	Evaluated Program	Sample Size	Results-Distribution of Funding across expenditure areas
National Association Of Counties, 2004 ³¹	SHSP	15 Core Counties, 50 States	Of the four, training, exercises, equipment and planning, in 80 % of the core counties the largest percentage of the funds was requested for equipment. ³²
U.S. Conference of Mayors, 2004 ³³	SHSP	215 Cities, 50 States	Equipment (84%); Training (81%) Exercises (70%); Planning (78%); Operations (62%); Management and Administration (59%).
U.S. Conference of Mayors, 2004 ³⁴	UASI	215 Cities, 50 States	Equipment (90%); Training (88%) Exercises (78%); Planning (68%); Operations (61%); Management and Administration (59%).

³⁰ U.S. General Accounting Office, “Homeland Security: Management of First Responder Grant Programs Has Improved, but Challenges Remain”. GAO-05-121 (Washington, D.C.: February, 2005) and “Homeland Security: Reforming Federal grants to Better Meet Outstanding Needs”, GAO-03-1146T (Washington, D.C. September 3, 2003).

³¹ National Association of Counties, "Homeland Security Funding: The Urban Areas Security Initiative" 2004. (Washington, D.C.: February 2004). This survey was designed to find out whether these targeted areas were receiving these much needed funds. Fifteen core counties, or 50 %, completed the survey. The responses represent 12 of the 20 states, or 60% of the states with designated high threat areas. In this survey, an urban area is made up of a core city and county including contiguous jurisdictions, and jurisdictions with formal mutual aid agreements. Generally, a core county is where the core city of the urban area is located. The funds were to address the unique equipment, training, planning, exercise and operation needs of these large urban areas.

³² Only Miami-Dade County and Multnomah County requested that the largest percentage of their funds be in the area of training.

³³ The United States Conference of Mayors, Homeland Security Monitoring Center, “Second Mayors’ Report to the Nation: Tracking Federal Homeland Security Funds sent to the 50 State governments: a 215 City/50 State survey”, January 2004. The sample size included cities as small as population 12, 359 and as large as 15,000,000. The average population in the survey cities is 223, 342.

2.3 Why Grants Fall Short of Goals

Timing of Grant Distribution

State and local governments rely on states to distribute homeland security grant funding in a timely manner. For example, the HSGP application process requires that states distribute funding to local governments within 60 days of receiving a federal award. While SLGCP has made progress in managing homeland security grant programs by providing states with increased flexibility, according to one report, some localities continue to face legal and procurement challenges that can tie up access to grants.³⁵ In order for funding to meet the goal of enhancing capacity to prevent, prepare for, and respond to acts of terrorism, efforts need to continue to focus on minimizing the time it takes to distribute grant funds to state and local first responders.

Allocation Formulas Not Linked to Risk

The largest fraction of SLGCP grant funding is allocated based on a formula which does not consider threat, vulnerability, or consequences of terrorism. Three of the Homeland Security Grant Programs, the SHSP, LETPP, and CCP, are distributed according to a two-part formula, using a base amount of 0.75 % of the total allocation for each state (including the District of Columbia and the Commonwealth of Puerto Rico), and 0.25 % of the total allocation for each U.S. Territory with the balance of funds being distributed on a population-share basis. The result is an allocation of 40% of the total allocation divided evenly among States, with the remaining 60% to be distributed to States based on share of population (a “40/60” formula). State funding is then sub-granted to local governments who, in turn, use it to address vulnerabilities to terrorism in their communities.

Meanwhile, UASI grants are discretionary grants allocated to a limited number of high-threat, high-density urban areas based on a formula which relies upon an evaluation of credible threat, presence of critical infrastructure, vulnerability, population, population density, law enforcement investigative and enforcement activity, and the existence of formal mutual aid agreements. According to the grant Application Kits, UASI grant criteria are: population density (50% of weight), presence of critical infrastructure (33% of weight), and credible threats (17 % of weight). MMRS funding goes to predetermined jurisdictions and is distributed based on population and threat assessment. In fiscal year 2005, the MMRS allocation is \$227,592 for each of the 125 MMRS jurisdictions.³⁶ EMPG are project grants which are available to all states, but require a matching requirement of 50% Federal and 50% State financing.

³⁴ Ibid.

³⁵ U.S. General Accounting Office, “Homeland Security: Management of First Responder Grant Programs Has Improved, but Challenges Remain”. GAO-05-121 (Washington, D.C.: February, 2005)

³⁶ According to the CFDA (97.071), the funding range can be \$250,000 to \$700,000.

The “Small-State Minimum”

One distinguishing feature of the SHSP program is the even distribution portion of funds across States. The size of the small-state minimum is much larger than the small-state minimums used by other grants. The small state minimum has been justified as preventing “risk transfers”, or shifts in the risk of terrorist attack from one state or locality to another without actually eliminating the overall chance of a catastrophic attack. However, the minimum is much larger than other formula grant programs.

Other grant programs provide funding based on a formula which uses population as a factor. The 50 largest federal grant programs in 2001, whose programs account for 95% of all the federal formula grant dollars to state and local governments in 2001, include factors such as: per-capita income, population, fiscal capacity and spending, cost for programs and services, minimum program allotments, energy, housing, population-related, transportation, and water.³⁷ Examining the 50 largest federal grant programs reveals that other federal grant formulas require minimum amounts (a “small-state minimum”).³⁸ Table 7 presents the finding that 12 of the largest federal grant programs in fiscal 2001 provided small-state minimum amounts ranging from 0.05 to 0.5 % of appropriations for the program for a given year. The SHSP program minimum amount for each state, 0.75 % of the total allocation is larger than most minimum amounts found in existing federal grant programs.

One study reported two additional grant programs with large state minimums.³⁹ One formula is a congressionally mandated formula requiring the Federal Highway Administration to allocate half of appropriated funds (\$49 million in 2002) for the “Recreational Trails Program” equally among states, with the balance allocated according to off-road recreational fuel usage. A second grant program with a large small-state minimum (1%) is the Department of Interior’s \$265 million “Sport Fish Restoration Program”. While these minimums are higher than the formula grant programs we are considering, these two programs are unrelated to national security and are focused on recreation. To be sure, recreation areas are more numerous in rural areas and so large state minimums targeted to reach these areas are rational.

³⁷ See supra, note 29.

³⁸ Ibid.

³⁹ Ransdell, T. “Federal Formula Grants and California: Homeland Security.” Public Policy Institute of California, (2004).

Table 7: Key Formulas Including State Minimum Amounts For the 50 largest Federal Grant Programs, FY01

Agency	Program	Formula Factors	“Small State Minimum”
Department of Justice	Byrne Formula Grant Program, Drug Control and System Improvement (CFDA 16.579)	Small-State Minimum, Population	To each state of \$500,000 or 0.25 % of the total amount available for the program, whichever is greater.
Department of Labor	Workforce Investment Act - Adult Employment and Training Activities (CFDA 17.258)	Share of nation's unemployed individuals in areas of substantial employment, share of nation's "excess" unemployed individuals, share of nations economically disadvantaged adults, small state minimum, maximum gain provision, hold-harmless provision	To each state at least 0.5 % of the program total for the fiscal year or 90 percent of the state's allocation for the previous fiscal year.
	Workforce Investment Act- Youth Activities, (CFDA 17.259)	Share of nation's unemployed individuals in areas of substantial employment, share of nation's "excess" unemployed individuals, share of nations economically disadvantaged youth, small state minimum, maximum gain provision, hold-harmless provision	To each state at least 0.3 % of the program's first \$1 billion of allocation dollars and the 0.4 percent of the program's allocation dollars in excess of \$1 billion.
Department of Transportation	Highway Planning and Construction (CFDA 20.205)	Contributions to Highway Account of the Highway Trust Fund, Share of nation's lane miles for the Interstate System, principal arterial routes and federal-aid highways, share of nation's vehicle miles traveled on the Interstate System, principal arterial routes, and federal-aid highways, Share of nation's diesel fuel used on highways, Ozone and carbon monoxide non-attainment and maintenance populations, Costs for repair or replacement of deficient bridges, Share of nation's population in urbanized areas, minimum funding requirements	To each state at least \$1 million in minimum guarantee funds

Table 7: (continued) Key Formulas Including State Minimum Amounts For the 50 largest Federal Grant Programs, FY01

Agency	Program	Formula Factors	“Small State Minimum”
Environmental Protection Agency	Capitalization Grants for Clean Water State Revolving Funds (CFDA 55.458)	Wastewater treatment needs, Population, Hold-harmless provision for larger states, Small-state minimum	No detailed description available.
Department of Education	Adult Education (CFDA 84.002)	Share of Nation's population aged 16 and older with less than a high school degree and not enrolled in secondary school, initial state allotment, program allocation for the previous year	To each state \$250,000
	Special Education - Grants for Infants and Families with Disabilities (CFDA 84.181)	State population of children aged birth through two as a share of total state population, minimum state allotment	To each state at least 0.5 % of the funds available for all states
	Technology Literacy Challenge Fund Grants - (CFDA 84.318)	Per-pupil spending, high number or share of poor students, fiscal 1995 Title I program allocations, minimum state allotment	To each state at least one half of one percent of the total amount appropriated
	School Renovation Grants (CFDA 34.352)	Per-pupil spending, high number or share of poor students, fiscal 1995 Title I program allocations, minimum state allotment	To each state at least one half of one percent of the total amount appropriated
Department of Health and Human Services	HIV Care Formula Grants, (CFDA 93.917)	Share of nation's estimated living AIDS cases, Share of nation's estimated living AIDS cases who reside outside of eligible metropolitan areas, minimum allocations for states with relatively few living AIDS cases, fiscal 1996 program allocation	Minimum distribution of \$100,000 to states with fewer than 90 estimated living AIDS cases or \$250,000 to states with at least 90 estimated living AIDS cases
	Special Programs for the Aging (CFDA 93.045)	Share of nation's population aged 60 and older, Hold-harmless provision based on fiscal 2000 funding level, minimum state requirement	To each state at least 0.5 % of the amount appropriated for the fiscal year
	Community Services Block Grant (CFDA 93.658)	Share of funding in 1981 for Section 221 of the Economic Opportunity Act of 1964, minimum state allotment	To each state at least 0.5 % of the amount appropriated, if the current year appropriation exceeds \$345 million, after discretionary funding is determined

Source: Kane, M. "Northeast-Midwest Guide to Federal Grant Programs." Northeast-Midwest Institute, Nov. 2001

2.4 Proposals for Change: Pending Legislation

Grant programs for homeland security originate from legislative acts or appropriations acts that must be passed by Congress and signed into law by the President each year, before implementation by DHS. Legislation introduced in the House and Senate in the 108th Congress (S. 1245/H.R. 3266), and approved in the two chambers, was never signed into law. Both Legislative bills pending in Congress and the fiscal year 2006 budget propose changes to the allocation of grant programs addressing these concerns:

- *How* should the federal government will award future DHS' first responder grants to state and local governments? Principally, should there be a "small state minimum"?
- *Where* should awards go -- to states, to the nation's metropolitan areas, directly to jurisdictions with targets, or to all of the nation's states and 3,066 counties?

Legislative Bills in the House and Senate

In Congress, there are Members who want to change the current formula for allocating federal homeland security grants to states and localities to reflect terrorism risks, and Members who prefer the current formula. This debate has fueled the introduction of Legislative Bills in both Houses of Congress.⁴⁰ The following paragraphs (and Tables) describe the major legislative proposals to date.

The following paragraphs introduce and compare H.R. 1544 and S. 21.⁴¹ Other Bills -- H.R. 91, H.R.228, S. 308 (identical to H.R. 1419), and S. 140 -- will be noted in the tables. On April 13, the Senate Homeland Security and Governmental Affairs Committee approved S. 21 (the Homeland Security Grant Enhancement Act of 2005) by Chair Susan Collins (ME) and Ranking Member Joseph Lieberman (CT) to authorize \$2.9 billion for the new grant program. Similarly, on April 21, the House Homeland Security Committee approved H.R. 1544 (the Faster and Smarter Funding for First Responders Act of 2005) by Committee Chair Chris Cox (CA), which does not contain a specific authorization level. Finally, on May 12, Senators Feinstein (CA) and Cornyn (TX) introduced S. 1013, the "Funding Our Risks with Appropriate Resource Disbursement Act of 2005" or the "Homeland Security FORWARD Funding Act of 2005".

House and Senate bills, S. 21, S.1013 and H.R. 1544, have several similarities. All bills maintain the "pass-through" requirement, mandating states to award 80% of funds to units of local governments and/or regions. The three bills would alter the current funding formula (in particular, the "small-state minimum"), replace the UASI with new regional application systems, and rely more on terrorism risk (threat, vulnerability, and

⁴⁰ Harris, Dalen A., "Congress reignites effort to revise state, local first responders grants," National Association of Cities, 2005
http://www.naco.org/PrinterTemplate.cfm?Section=homeland_security&template=/ContentManagement/ContentDisplay.cfm&ContentID=15997

⁴¹ Ibid.

consequence), linking funding with capabilities.⁴² The regional funding would still flow through the states, as under the current UASI program, with states required to pass at least 80 % of the regional money to the regions. Both bills emphasize local regional collaboration, the prioritization of national homeland security goals and objectives, flexibility in spending homeland security funding, national standards for homeland security equipment and training, and accountability to prevent wasteful spending and fraud. Additionally, S. 21 and H.R. 1544 both call for the creation of interagency, and state and local advisory boards to oversee, analyze and advise the DHS secretary, and coordinate the revised risk-based DHS grant programs. Generally, the revised legislation in both the House and Senate would allocate most of the funding based on the risk of and vulnerability to future terrorist threats; however, the two bills differ on the distribution structure for awarding the grants to state and local first responders.

The Senate bill, S. 21, would consolidate three DHS programs: SHSP, LETPP, and UASI programs. Under the legislation, each state would first receive a minimum level of funding equal to 0.55 % of the grant appropriation. All funds beyond those necessary to cover the baseline allocations would be distributed based on the relative threat, vulnerability, and consequences faced by an area from a terrorist attack. While all states would be eligible for the baseline amount, the bill authorizes a higher minimum based on a formula that combines the presence of critical infrastructure and other vulnerabilities or risk factors to states that are larger or more densely populated. One key point is that the state minimums, and not necessarily the total state allocations, may be higher than under current law in that both the block grant and UASI funding would be included in this distribution subject to the minimum, rather than just the state block grant as under current law.

Under S. 21, communities would be given flexibility in forming regions to apply for funding, but the regions must be made up of two or more contiguous municipalities, counties, parishes or Indian tribes, and must include the largest city in the metropolitan area. Only regions within the 100 largest metropolitan statistical areas (MSAs) would be eligible to apply, though other regions could apply with the consent of the Governor and the Secretary of Homeland Security. Grants to regions would be prioritized based on threat, vulnerability and consequences from a terrorist attack, with consideration to be given to such factors as population, population density, proximity to international borders and coastlines, and the proportion of the relevant metropolitan area participating in the regional application. Grants to regions could comprise up to 50% of the threat-based grant funding (30% of total funding because of state minimums). The Senate bill would allow federal funding to be used for overtime to cover (1) training that is consistent with the goals of the approved State plan; and (2) increases in the threat level under the Homeland Security Advisory System, as defined by the DHS Secretary. In addition, the Secretary can designate up to 25% of the state block grant money for the LETPP, under which overtime is allowed for activities included in the approved state plan.

⁴² Somers, Ed. "Homeland Security Funding Changes Move Forward in Congress", April 25, 2005

As introduced by Senators Feinstein and Cornyn, Senate Bill 1013 would alter the funding formula such that each State receives at least 0.25 % of authorized funds (equal to the percentage in H.R. 1544). Like S.21 (and H.R. 1544) this Bill requires risk analysis for grant allocation for homeland security programs (specifically, the SHSP, UASI, LETPP, and CCP). Like S.21, S. 1013 links funding to “essential capabilities” with capabilities based on population, critical infrastructure and threats. This Senate Bill stipulates that only States can apply for SHSP grants, and only regions can apply for UASI grants. Meanwhile, airport or port operators can apply for grants directly. Finally, S.1013 establishes a Task force on essential capabilities (similar to the task force established in H.R. 1544).

The House Bill, H.R. 1544, would also change the current formula and criteria for the distribution of first responder grants to state and local governments, and target funds based on based on risk, threat and vulnerability. The legislation consolidates the SHSGP, LETPP and UASI grant programs; but the bill proposes that each state be guaranteed no less than 0.25 % of the baseline formula. Under the House bill, funding would be assigned to each state based on a DHS assessment of its risk of terror attack. If the assessment determined that a state would get less than 0.25 %of the available funds, the department would make up the difference. Furthermore, States with an international land border or international port would receive at least 0.45 % of the baseline formula. The remainder of the funding would be allocated based on terrorism risk (threat, vulnerability, consequence)

The House bill differs from the Senate bill (S. 21) because the legislation instructs DHS to first prioritize and then award states and regions based on risk, threat and vulnerability, with the stipulation that all states and regions would receive no less than 0.25 % of the baseline formula. The Senate bill would first award a baseline amount of 0.55 % to all states prior to any assessment of risk, threat or vulnerability. Experts have noted that H.R. 1544 would provide a higher award to large states and metropolitan regions, and closely mirrors DHS and the administration’s proposal for these grant programs.

Under the House bill, regional applications would be allowed for: 1) geographic areas consisting of all or parts of two or more contiguous states, counties, municipalities or other local governments that have a combined population of 1.65 million or encompassing an area of not less than 20,000 square miles; or 2) areas certified as regions by DHS with the consent of both the State or States in which they are located, and the incorporated jurisdictions within the region. No specific percentage of funding is reserved under the House bill for regional applications.

Regional grants would be prioritized based on their ability to lessen the threat to, vulnerability of, and consequences for persons (including transient commuting and tourist populations) and critical infrastructure based on national risk assessments and threats of terrorism. The House bill allows overtime for training and for elevated threat levels of orange or red, either at the national level or within a specific state, region or local

government as approved by DHS.⁴³ The House bill would require at least a 25 % match two years after enactment of the new law.

Other bills that propose to alter homeland security grant spending which have been introduced in the 109th Congress have only recently been referred to subcommittees (H.R. 91, H.R. 228, H.R. 1419/S.308, S. 140). Table 8 outlines the different proposals.

Table 8: Select Features of Pending Legislation to Alter DHS Grants for First Responders

U.S. HOUSE OF REPRESENTATIVES				
Bill	Date Introduced	Sponsor	Status	Selected Award Criteria
H.R. 1544	4/12/2005	Rep. Cox	Passed in House on 5/11/05	Each state will receive at least 0.25 % of authorized funds. Consolidates the SHSGP, LLETP and UASI grant programs. Assigns funding to each state based on a DHS assessment of its risk of terror attack. If the assessment determined that a state would get less than 0.25 % of the available funds, the department would make up the difference, and States with an international land border or international port would receive at least 0.45 % of the baseline formula. The remainder of the funding would be allocated based on risk, threat and vulnerability. Forms a First Responder Grants Board
H.R. 91	2/25/2005	Rep. Frelinghuysen	Referred to Subcommittee on Emergency Preparedness, Science and Technology	Based on threat to a State/Region's population and critical infrastructure as determined by the Under Secretary for IAIP. Threats include: threats to the population, specific economic sectors, major communications nodes and transportation systems, specific elements of the food supply, the water and energy supplies, civic infrastructure and emergency response capabilities, and specific structures of symbolic national importance. Bars the use of grant funds to supplant State or local funds that would otherwise be available for homeland security or first responder projects. Eligible recipients are States and Eligible Regional Entities.
H.R. 228	1/4/2005	Rep. Sweeney	Referred to Committee on Homeland Security	Each State receives at least 0.50 % of authorized funds. Grants will also be awarded based on a quantitative assessment or risk for three categories: Threat, vulnerability, consequences.
H.R. 1419 (same as S.308)	3/17/2005	Rep. Menendez	Referred to Committee on Homeland Security	Based strictly on assessment of risk, threat and vulnerabilities as determined by the DHS Secretary. Repeals the Patriot Act Funding Formula. The following programs do not apply to this legislation: FIRE grants, EMPG and Urban Rescue Grants, and other grants not included in the current Homeland Security Grant Program

⁴³ This addresses the concern that “state and local law enforcement are stretched to the limit through inadequate funds for overtime and additional staff at a time when enhanced surveillance is a fundamental requirement”. See survey results, National Emergency Management Association, “State Spending of Homeland Security Funds”, www.nemaweb.org, April 2003

Table 9: Select Features of Pending Legislation to Alter DHS Grants for First Responders

U.S. SENATE				
Bill	Date Introduced	Sponsor	Status	Selected Award Criteria
S. 21	1/25/2005	Sen. Collins	Passed in Senate on 4/13/05	Each State receives at least 0.55 % of authorized funds. States could opt for that flat payment or receive a sum based on a sliding scale pegged to population. However, no state would be guaranteed more than 3 % of the available funds. The DHS would distribute the remainder of authorized funding based on risk, largely at the DHS Secretary discretion. Establishes an application for metropolitan region funding. Links essential capabilities to grant funding decisions for states and localities.
S. 140	2/15/2005	Sen. Clinton	Read Twice and Referred to the Committee on Homeland Security and Governmental Affairs	Reserves 1% of grant funds for Indian Tribes. 70% of grant funds go to metropolitan cities and urban counties based on: various infrastructure vulnerabilities and threats such as proximity to international borders, nuclear or other energy facilities, air, rail or water transportation, and national icons and federal buildings. Remainder allocated among the States for use in non qualifying communities (not a metropolitan city, urban county, or Indian Tribe). Discretionary grants to high-threat, high-risk urban areas. Earmarks funds for flexible emergency assistance fund for states and local governments that incur extraordinary homeland security costs. Eligible Recipients are States, Regional Corporations, and units of local government. Eligible Activities are Planning, Personnel, Equipment, Training, and Communication.
S. 1013	5/11/2005	Sen. Feinstein and Sen. Cornyn	Introduced	Each State receives at least 0.25% of authorized funds. Requires risk analysis for grant allocation for SHSP, UASI, LETPP, CCP. Requires grants be designed to meet "essential capabilities". Only States can apply for SHSP grants. Only regions can apply for UASI grants. Airport/Port operators can apply for grants directly. Establishes a Task force on essential capabilities. Capabilities based on population, critical infrastructure and threats.

The Bush Administration: Fiscal Year 2006 Budget (FY2006 Budget)

The President’s FY2006 budget request states that the current funding formula does not account for the unique threats, vulnerabilities and unmet needs of each state. As a result, the budget proposes to award each state to 0.25 % (down from 0.75%), and to distribute the remainder on a discretionary basis incorporating evaluations of risk, an application-based review of need, and consistency with national priorities. In the FY2006 budget request, the Administration proposes roughly \$3.36 billion for state and local homeland security assistance programs. This is \$250 million less than these programs were appropriated in fiscal year 2005 (\$3.61 billion).

The FY2006 Budget request proposes to make three key changes in the homeland security grant programs administered by SLGCP.

Table 10: Select Features of FY 2006 Budget for First Responder Grants

Administration: Fiscal Year 2006 Budget	
Selected Award Criteria	Analysis
<p><u>Consolidates Programs:</u> Merges the Law Enforcement Terrorism Prevention Program (LETPP) activities (appropriated \$400 million) into the State Homeland Security Grant Program (SHSP) and the Urban Area Security Initiative (UASI); The budget provides no line item funding for the LETPP. Instead, it directs states and localities to allocate no less than 20% of SHSP and UASI funding for LETPP activities</p>	<p>This appears to be a reduction in funding for both the SHSP and UASI programs (see explanation in text)</p>
<p><u>Creates a New Program:</u> Transfers five Urban Area Security Initiative sub-grants (rail, port, intercity bus, trucking industry, and non-governmental security grants) to a new Targeted Infrastructure Protection Program (TIPP), and requests \$600 million for the program. TIPP would provide funding to enhance the security of port, transit systems, and other infrastructure, as determined by the DHS Secretary. Part of the TIPP funds (\$50 million) would be used for implementing buffer zone protection plans</p>	<p>It appears that TIPP will be receiving more funding than these programs previously received. (see explanation in text)</p>
<p><u>Changes the Funding Formula:</u> the formula used to allocate State Homeland Security Grant Program funds to states and localities. The FY 2006 budget request proposes \$1.02 billion for SHSP to be allocated based on terrorism risks and unmet first responder capabilities, provided each state and territory is allocated no less than 0.25% of total funds appropriated for this program. Both CCP the EMPG programs would continue to be allocated based on a state a minimum of 0.75% of total appropriated funds for these programs. There is no proposed formula change for UASI, except that 20% of total appropriations would be used for law enforcement terrorism prevention activities.</p>	<p>Using fiscal year 2005 appropriation figures, States currently receiving roughly \$11 million in the small state minimum would receive \$2.3 million, to be supplanted by funding based on risk</p>

First, the FY2006 Budget merges the Law Enforcement Terrorism Prevention Program (LETPP) activities (appropriated \$400 million) into the State Homeland Security Grant Program (SHSP) and the Urban Area Security Initiative (UASI); the budget provides no line item funding for the LETPP. Instead, it directs states and localities to allocate no less

than 20% of SHSP *and* UASI funding for LETPP activities.⁴⁴ This appears to be a reduction in funding for both the SHSP and UASI programs.⁴⁵

Next, the FY2006 Budget transfers five Urban Area Security Initiative sub-grants (rail, port, intercity bus, trucking industry, and non-governmental security grants) to a new Targeted Infrastructure Protection Program (TIPP), and requests \$600 million for the program. TIPP would provide funding to enhance the security of port, transit systems, and other infrastructure, as determined by the DHS Secretary. Part of the TIPP funds (\$50 million) would be used for implementing buffer zone protection plans.⁴⁶ From the budget proposal can infer that by not requesting funding for port, rail, intercity bus, trucking industry, and non-governmental organization security programs, the Administration intends for TIPP to replace these UASI sub-grants. It appears that TIPP will be receiving more funding than these programs previously received. In its fiscal year 2006 budget request, the administration proposed \$600 million for TIPP, a \$260-million increase in overall funding from fiscal year 2005 for the specific transportation security grant programs. In fiscal year 2005, funding for port, rail, truck, intercity bus, and non-governmental organizations security totaled \$340 million.⁴⁷

Finally, the FY2006 Budget Changes the formula used to allocate State Homeland Security Grant Program funds to states and localities. The FY 2006 budget request proposes \$1.02 billion for SHSP to be allocated based on terrorism risks and unmet first responder capabilities, provided each state and territory is allocated no less than 0.25% of total funds appropriated for this program. Both CCP the EMPG programs would continue to be allocated based on a state a minimum of 0.75% of total appropriated funds for these programs.⁴⁸ There is no proposed formula change for UASI, except that 20% of total appropriations would be used for law enforcement terrorism prevention activities. Additionally, there is no proposed formula change for the Assistance to Firefighters Program (FIRE); however, the Administration proposes that FIRE applications to enhance terrorism response capabilities be given priority.⁴⁹ Using fiscal year 2005

⁴⁴ Fiscal Year 2006 Budget for the United States Government, Appendix, p. 478.

⁴⁵ In fiscal year 2005, Congress appropriated \$1.1 billion for SHSP, and states and localities were authorized to use this funding for homeland security equipment, training, exercises, and planning. By requiring states and localities to allocate no less than 20% (\$204 million) of the FY2006 budget request amount of \$1.02 billion for SHSP for LETPP activities, the Administration proposes that SLGCP allocate \$816 million to states and localities for homeland security equipment, training, exercises, and planning. This is \$284 million less than the FY2005 appropriated total for SHSP. The FY2006 budget also proposes to decrease UASI funding. In fiscal year 2005, Congress appropriated \$860 million for UASI high-threat, high-risk urban areas. By requiring high-threat, high-risk urban areas to allocate no less than 20% (\$204 million) of the FY2006 budget request amount of \$1.02 billion for UASI for LETPP activities, the Administration proposes that SLGCP allocate \$816 million to high-threat, high-risk urban areas for homeland security equipment, training, exercises, and planning. This is \$44 million less than the FY2005 appropriated amount for UASI.

⁴⁶ Fiscal Year 2006 Budget for the United States Government, Appendix, p. 478.

⁴⁷ U.S. General Accounting Office, "Maritime Security: Enhancements Made, But Implementation and Sustainability Remain Key Challenges" (Washington, D.C: GAO-05-448T) May 17, 2005 p.22

⁴⁸ P.L. 107-56.

⁴⁹ See supra note 46, 2006 Budget, p. 480

appropriation figures, States currently receiving roughly \$11 million in the small state minimum would receive \$2.3 million, to be supplanted by funding based on risk.

Summary

The majority of the six homeland security grant programs administered by SLGCP originated in the pre-9/11 era from programs developed across several different agencies. Today, these programs collectively provide over \$2.5 billion in funding to state and local governments. The question is whether this funding meets objectives as articulated in the homeland security grant application. There are several ways to analyze whether these programs are meeting the goals as articulated in the program description. Three areas were examined which compromise the ability of the programs to meet their objectives -- grant distribution, allocation formulas, and the small-state minimum. Challenges to increasing program effectiveness involve redesigning the funding formula and adopting methods for expediting and streamlining the distribution of funds. The chapter concluded by outlining pending legislation that addresses many (if not all) of the inefficiencies exposed in this section.

3. ALTERNATIVE GRANT MECHANISMS FOR ALLOCATING FEDERAL FUNDS

Introduction

While legislative proposals seek to redesign the funding formula to address inefficiencies in the grant formula and in grant distribution, two questions critical to any alternative are: (1) what is the role of state and local governments in providing the ability to prevent, prepare for, and respond to acts of terrorism, and (2) given the roles of the respective levels of government, what is the proper funding mechanism to align the incentives of federal, state and local actors? In addition, once the grant mechanism has been selected, is proper targeting in place to make certain that the grant reaches the targeted “need”? This chapter addresses these topics from a public finance/public economics perspective.

3.1 Economic Justification for Intergovernmental Transfers for Homeland Security at the State and Local Level

While the provision of public safety is the core function of local governments, the events of 9/11 demonstrated that public safety is more than a local issue -- it is a coordination of federal, state and local efforts.⁵⁰ The theory of fiscal federalism establishes a general framework assigning functions to different levels of government, and fiscal instruments (such as taxes and intergovernmental aid) for implementing these functions.⁵¹ Higher levels of government use intergovernmental aid (grants, shared taxes, and contingent loans) to finance the activities of lower levels of governments and influence lower-level government policies.⁵² This theory provides guidance for the public finance mechanisms that can be used to fund homeland security.

The provision of funding for first responders to prevent, prepare and respond to terrorist events cannot be categorized as purely falling under the funding responsibility of the Federal government or local governments⁵³. According to Oates, the Federal government

⁵⁰ Kettl, Donald F. “The States and Homeland Security: Building the Missing Link” A Century Foundation Report. Washington, D.C. 2003. <http://www.tcf.org/Publications/HomelandSecurity/kettl.pdf> (last accessed 06/05)

⁵¹ Oates, W. 1999, “An Essay on Fiscal Federalism.” *Journal of Economic Literature* 37: 1120-1149.

⁵² The U.S. Census Bureau defines intergovernmental revenue as monies from other governments, including grants, shared taxes, and contingent loans and advances for support of particular functions or for general financial support; any significant and identifiable amounts received as reimbursement for performance of governmental services for other governments; and any other form of revenue representing the sharing by other governments in the financing of activities administered by the receiving government. [U.S. Bureau of Census. 2002 Census of Government Finances, Codebook]

⁵³ Local governments can be defined as general purpose governments -- counties, municipalities, and towns and townships. According to the U.S. Census, in 2002, there were 87,525 state and local governments. These include 3,034 counties, 19,429 municipalities, and 16,504 towns and townships comprising general purpose governments. There are also 35,052 special districts and 13,506 independent school districts. Special or limited-purpose governments are established by state legislatures over an area including many general purpose governments, and provide infrastructure services to suburbs without disturbing suburban

is responsible for five goals: (1) redistributing income and compensating jurisdictions with high costs and/or low resources, (2) macro-stabilization policies because local governments have limited means for macroeconomic control of their economies, (3) providing social security and services, (4) protecting the environment, (5) providing services that are pure public goods for which marginal cost is zero, like national defense, and research.

In contrast, state and local governments are responsible for services that (1) are limited to their own jurisdictions, (2) are “local public goods” where the sum of residents’ marginal benefit equals marginal cost varies across jurisdictions (based on preferences and costs), so in this case, local outputs should vary, and (3) are distinguished by limited/no spillovers, (4) and become congested as more households use the service, in which case, small communities will produce there more efficiently, (e.g., education, police, fire, sanitation, recreation).⁵⁴

While local communities can provide emergency services more efficiently than federal officials for some types of catastrophes (because the provision of emergency services for floods, for example, is a local good) the function of protecting against terrorism also falls squarely under a federal, national defense function. As a result, current grant programs strive to align federal and local interests and capabilities. While local governments currently spend their own funds on homeland security efforts, federal contributions play a large role in supplementing already existing programs. The following paragraphs address the grant mechanisms available to meet homeland security needs and to align federal, state and local incentives.

3.2 Aligning Homeland Security Incentives Using Different Types of Grants

Grants, otherwise known as intergovernmental aid or transfers, play a large role in aligning the incentives among federal, state and local actors. In order to determine which types of grants can be most effective in achieving homeland security objectives, the different types of grants need to be considered. Table 11 presents the benefits and weaknesses of two popular grant programs, formula grants and matching grants.

Intergovernmental aid programs can then be classified by type of transfer, method of transfer, timing of transfer, and targeting of transfer. Grants typically fall generally under two general categories. Non-categorical grants are lump-sum amounts (for example, competitive grants) that can be spent by the recipient government according to its needs with “no strings attached”. These grants are ‘revenue sharing’ in that the government making the grant effectively shares its general tax revenue with the recipient government.

In contrast, categorical grants (either block grant or matching grant) are given to jurisdictions for a specific spending purpose or program and can be subject to restrictions

autonomy. Limited purpose governments link municipalities but have no general governmental authority over the territory or residents within the jurisdiction.

⁵⁴ Oates, W. 1999, “An Essay on Fiscal Federalism.” *Journal of Economic Literature* 37: 1120-1149.

or mandates.⁵⁵ A block grant is a fixed sum, irregardless of the level of spending on the purpose by the recipient government, which must be spent on the specified purpose. A matching grant is a variable amount that increases as the recipient spends more on the specified purpose. Three common types of transfers are open-ended matching grants, closed-ended categorical grants, and unconditional grants.⁵⁶

In terms of timing, intergovernmental aid can be one-time or recurring, varying with the method of provision (such as contingent loans, matching grants, etc.), such that federal and state grants can have a long-term influence in determining local policy. For instance, while Federal Community Oriented Policing Services (COPS) grants help local governments defray the cost of hiring of additional police officers, the grant is for \$75,000 to be disbursed over a period of three years after which the local government must bear future payroll costs and is barred from terminating the new officer.⁵⁷ On one extreme, one government can cease to provide grants for a service, thereby “devolving” this responsibility to a lower-level government.⁵⁸

Categorical Grants: Formula Grants

Formula grants (also known as block grants or categorical grants) differ from other federal grants in that the federal government allocates programmatic funding to state and local governments using a predetermined mathematical formula which often includes adjustments that place constraints on levels or shares (percentages of the total allocation) or on changes in levels or shares. Many programs use official statistics as inputs in the estimation of the central formula components of need, capacity, and effort (such as total population, population by age group, per capita income, and proportion of persons with family income below the poverty line). Formulas are used to allocate more than \$250 billion of federal funds annually to state and local governments via more than 180 grant-in-aid programs.⁵⁹ Unlike discretionary or project grants (which are allocated on a competitive basis by a federal agency) and congressional earmarks (through which a specific recipient or program receives funding) formulas generally use uniform, objective means to allocate funds. Formula spending represents approximately 85% of all federal grant expenditures; the remainder is spent on competitive or project grants.⁶⁰

There are four key benefits to using formula grants. Table 11 enumerates the benefits (and weaknesses) of formula grants. First, formula grants facilitate linking the structure

⁵⁵ Federal highway grants are categorical grants which impose a restriction. In this case, the Federal government requires states to impose a 0.08% blood alcohol limit for determining driving while intoxicated or they would lose part of their federal highway grants.

⁵⁶ Gramlich, E. M., et al. “State and Local Fiscal Behavior and Federal Grant Policy.” *Brookings Papers on Economic Activity* 1(1973): 15-65. See also Oates, W. 1999, “An Essay on Fiscal Federalism.” *Journal of Economic Literature* 37: 1120-1149.

⁵⁷ Choi, C., C. C. Turner, and C. Volden. “Means, Motive, and Opportunity: Politics, Community Needs and Community Oriented Policing Services Grants.” *American Politics Research* 30, no. 4(2002): 423-455.

⁵⁸ Deller, S. C. “Local Government Structure, Devolution, and Privatization.” *Review of Agricultural Economics* 20, no. 1(1997): 135-154.

⁵⁹ Bruce, Neil. *Public Finance and the American Economy*, Second ed. Addison Wesley: New York. 2001.

⁶⁰ Ransdell, T. “Federal Formula Grants and California: Homeland Security.” Public Policy Institute of California, (2004).

of the aid program to its objectives.⁶¹ Using a formula developed by Ladd and Yinger⁶² and Downes and Pogue⁶³, one can calculate the appropriate amount of aid for any recipient jurisdiction.⁶⁴ Next, using a formula can address changes in need and other formula components without Congress having to revisit the issue annually. The use of a formula (versus an arbitrary specification of amounts granted to a recipient jurisdiction) also facilitates informed debate and transparency and can thereby help build consensus for and the credibility of a program. Moreover, formulas can be essential in facilitating political compromise. While many advocates for aid programs are motivated by specific objectives, they often need to make compromises to gain approval of the authorizing legislation. Formulas can offer political shield to politicians and others involved in the process of compromising⁶⁵, and can greatly simplify the process of compromising by reducing the dimensionality of the problem by focusing on the structure of the formula and the statistical inputs to that formula. Finally, formulas make it easier to quantify the impact of alternative compromises.

There are three weaknesses to using formulas for allocating grants. First, funding formulas can serve as neutral arbiters of who receives and deserves funding. However, formulas are the product of a political environment, “where drafters must remain mindful of winning sufficient support from committee members, party leadership, and the rank and file of both the House and Senate.”⁶⁶ Next, the formula that is subjected to a great degree of compromise may lose the desired objective in the process. Additionally, when funds are allocated according to a formula, there is no guarantee that objectives will be fully met. In particular, properties of data sources and statistical procedures used to produce formula inputs can interact in complex ways with formula features to produce

⁶¹ Statistical Issues in Allocating Funds by Formula (2003), Panel on Formula Allocations, Thomas A. Louis, Thomas B. Jabine, and Marisa A. Gerstein, Editors, National Research Council. Chapter 2. Committee on National Statistics <http://www.nap.edu/books/0309087104/html/22.html> (last accessed 6/05)

⁶² Ladd, H.F., and J. Yinger 1994 the case for equalizing aid. *National Tax Journal* 47(1):221-224.

⁶³ Downes, T.A., and T.F. Pogue 1994 Accounting for fiscal capacity and need in the design of school aid formulas. In *Fiscal Equalization for State and Local Government Finance*, J.E. Anderson, ed. New York: Praeger Publishers.

⁶⁴ The formula is: $Aid = (Spending\ needed\ for\ target\ services) - (Local\ revenue\ rose\ with\ reasonable\ effort) = F n C - t * V$. Where F is the level of spending per eligible individual needed to achieve the target service level, n is the number of eligible individuals in the recipient jurisdiction, C is a cost index that adjusts for differences amongst local governments in the cost per eligible individual of providing given public services, t* is the formula tax rate, which is multiplied by each recipient government’s fiscal capacity to determine its contribution to financing the target level of spending, and V is the fiscal capacity of the recipient jurisdiction. The formula tax rate t* is chosen such that a locality that chooses to levy that rate will be able to reasonably provide the target service level. The formula tax rate t* and the level of spending needed to achieve the target service level F are policy parameters; these quantities would be the same for all recipient jurisdictions. Typically, policy makers would set the value of t* at what they feel is the minimum fair tax rate. Recipient jurisdictions typically choose local tax rates that differ from t* . The benefit of this equation is that providing aid according to this formula closes the gap between need and effort without preventing residents of a recipient jurisdiction from expending their own resources to provide more or less of the public service in question.

⁶⁵ Statistical Issues in Allocating Funds by Formula (2003), Panel on Formula Allocations, Thomas A. Louis, Thomas B. Jabine, and Marisa A. Gerstein, *Editors*, National Research Council. Chapter 2. Committee on National Statistics <http://www.nap.edu/books/0309087104/html/22.html> (last accessed 6/05)

⁶⁶ Ransdell, Tim. 2004. “Factors Determining California’s share of federal formula grants.” Public Policy Institute of California.

consequences that may not have been anticipated or intended. Finally, some objectives are difficult to quantify in a formula, for which it may be difficult to find measurements of need or cost.

Categorical Grants: Matching Grants

Matching grants (sometimes referred to as non-block grants) are grants allocated based on a matching contribution by the recipient jurisdiction. Two types of matching grants are used, open-ended and closed-ended. Open-ended grants require the granting government agency to match the grant regardless of the amount. A closed-ended grant caps the granting government expenditure at a certain level. By giving a jurisdiction half of a certain amount of funding the jurisdiction needs to fund a certain project or objective, the federal level can influence the level of the local public provision.

Typically, the matching grant for the low cost community should be set such that on the margin the deadweight loss (economic loss) from the grant (which is essentially a subsidy) exactly balances the marginal gains.⁶⁷ Dahlby and Wilson⁶⁸ consider a model for setting the matching grant amount such that the grant reflects the marginal tax revenue that accrues to the federal level when the local public expenditures increase by one unit.

The benefit of using matching grants is that they reduce the price of the given function, and because they reduce the amount by which local tax revenues must be increased in order to increase spending on the aided function by one dollar. In other words, matching aid programs encourage more spending on the aided function by reducing the price of that function from the perspective of the recipient government. From the perspective of the recipient, matching grants are beneficial because they ensure a minimum level of service output and because they encourage recipient governments to administer the program in an efficient and effective manner. Matching grants also equalize spending for selected activity among states and localities

While a grant with no or a low matching requirement for recipients encourages eligible recipients to apply, a grant with a high matching requirement for recipients discourages eligible recipients from applying. The key weakness of matching grants is that recipients with low fiscal capacity typically have difficulty participating in programs with a high matching requirement. While individual jurisdictions perform a cost/benefit analysis to determine whether their jurisdiction can benefit from the matching contribution that is required, the cost/benefit analysis may lead a jurisdiction to decline service.

For homeland security programs, jurisdictions that are not able to meet matching requirements and forego services may provide a negative externality to neighboring

⁶⁷ Statistical Issues in Allocating Funds by Formula (2003), Panel on Formula Allocations, Thomas A. Louis, Thomas B. Jabine, and Marisa A. Gerstein, Editors, National Research Council. Chapter 2. Committee on National Statistics <http://www.nap.edu/books/0309087104/html/22.html> (last accessed 6/05)

⁶⁸Dahlby, B., and L. S. Wilson (2003), Vertical fiscal externalities federation, Journal of Public Economics 87, 917-930.

jurisdictions. For example, a jurisdiction that remains unprotected (due to inability to pay) given a risk in the jurisdiction represents a weakness to a terrorist. The individual jurisdiction's weakness may increase the vulnerability of the region as a whole.

Given the benefits of matching grants, Congress could enact a small matching requirement for SLGCP grants. A related approach would be to establish a matching requirement, but give states and localities a degree of flexibility in satisfying the requirement. This could be accomplished by establishing a "soft match," allowing recipients to match federal grants with "in-kind contributions" or any non-federal funds. This would allow recipients to assess the value of contributed goods and services and apply those amounts to their matching requirement. Alternatively, Congress could establish a low matching rate initially and gradually increase the rate. Considering that some existing first responder programs have no matching requirement.

Non-Categorical Grants

Non-categorical grants are allocated to governments with no strings attached. These grants may be competitive grants or project grants and they increase the jurisdiction's budget without changing the marginal cost of the public good to the jurisdiction. Typically this increases the quantity of public and private goods consumed, because part of the grant is used to reduce local taxes. The weakness of these grants for homeland security is that local governments are not provided with incentives to fulfill the level of service that would be optimal for the nation or the region.

Maintenance of Effort (MOE) Requirements

Congress uses "Maintenance of Effort (MOE) requirements" to ensure that recipients continue providing the same level of assistance, and use federal funds only to supplement, not substitute, for their own funds. Without such a requirement, federal funds could enable the activity to continue, but might not increase the overall funding for the assisted activity. They also are important in block grants where the functional terrain is broad and often not clearly defined, making fungibility even easier.⁶⁹

The inclusion of MOE comes with benefits. MOEs (and non-substitution requirements) are integral parts of any grant that is not totally unconditional. At the same time, MOE requirements do not prevent recipient jurisdictions from scaling back planned increases in funding. The SLGCP SHSP as well as FEMA's Assistance to Firefighters and EMPG programs, all contain MOEs.⁷⁰

One reason why Congress may omit a MOE requirement is that such requirements could offer states and localities, many of which are presently experiencing fiscal distress, more

⁶⁹ U.S. Government Accounting Office, "Combating Terrorism: Intergovernmental Partnership in a National Strategy to Enhance State and Local Preparedness". March 2, 2002. GAO-02-547T

⁷⁰ Congressional Research Service, "First Responder Initiative: Policy Issues and Options", (Washington, D.C.) September 29, 2003, Report RL31475

flexibility with their own funds. It could also be argued that homeland security is a national concern, and, thus, should be financed with federal funds.

Table 11: Comparison of Grant Mechanisms for SLGCP Homeland Security Grants

Formula Grants (e.g., SHSP, CCP, LETPP, UASI)	
Benefits	Weaknesses
<p>(1) Promote a wide spectrum of economic and social objectives, and many are designed to compensate for differences in fiscal capacity that affect governments' abilities to address identified needs. (2) Facilitate linking the structure of the aid program to its objectives. One can calculate the appropriate amount of aid for any recipient jurisdiction. (3) Political Benefits: (a) ability to address changes in need and other formula components without Congress having to revisit the issue annually. (b) Facilitates informed debate and transparency and can thereby help build consensus for and the credibility of a program, (c) facilitate political compromise. Formulas can offer political shield to politicians and others involved in the process of compromising (d) can reduce the dimensionality of the problem by focusing on the structure of the formula and the statistical inputs to that formula (e) facilitates quantifying the impact of alternative compromises.</p>	<p>(1) Funding formulas can serve as neutral arbiters of who receives and deserves funding. However, formulas are the product of a political environment, where drafters must remain mindful of winning sufficient support from committee members, party leadership, and the rank and file of both the House and Senate. (2) Some objectives are difficult to quantify in a formula, for which it may be difficult to find measurements of need or cost.</p>
Matching Grants (e.g., EMPG)	
Benefits	Weaknesses
<p>(1) Reduce the amount by which local tax revenues must be increased in order to increase spending on the aided function by one dollar. In other words, matching aid programs encourage more spending on the aided function by reducing the price of that function from the perspective of the recipient government. (2) Reduce the price of the given function, (3) Benefit the donor federal government by ensuring a minimum level of service output. By asking for a matching requirement, matching grants encourage recipient governments to administer the program in an efficient and effective manner. (4) Equalize spending for selected activity among states and localities</p>	<p>(1) A grant with no or a low matching requirement for recipients encourages eligible recipients to apply. However, a grant with a high matching requirement for recipients, however, discourages eligible recipients from applying. Recipients with low fiscal capacity typically have difficulty participating in programs with a high matching requirement. While individual jurisdictions perform a cost/benefit analysis to determine whether their jurisdiction can benefit from the matching contribution that is required, the cost/benefit analysis may lead a jurisdiction to decline service.</p>

3.3 Complications with Grant Design for Homeland Security Objectives

As different groups ponder future allocations of homeland security funding, one key question is whether a homeland security grant formula that allocates funding based on a state minimum and state population is the ‘optimal’ distribution formula for reducing terrorism risk.⁷¹ Another concern with homeland security grants, in addition to the alignment of appropriate incentives among levels of governments, concerns grant design.

Targeting Concerns

Grants often have as their rationale some criterion of economic need.⁷² If the grants are administered according to their stated rationale, then the largest sums of money should go to the neediest areas. The challenge with the design of any grant and with homeland security grants in particular, is determining the “neediest” areas.⁷³ In order for spending to meet the role it was intended to meet, federal grants must be targeted appropriately. In the case that funds do not reach their intended beneficiaries, the formula may need to be reconsidered.

One problem with homeland security formula grants for first responders is that the statutory language does not require targeting funds to needs.⁷⁴ Unlike other grant programs, the SHSP has no explicit targeting to goals.⁷⁵ Drawing an inference from the formula, SHSP grants target places in “need” by using a state minimum and population.⁷⁶ In this way, the funding formula used in the SHSP program may be clouded by perceptions of “need” that are clouded by political aims such as maximizing votes or maximizing intergovernmental grants so as to buy voter support.⁷⁷ The current SHSP is a political result generated by the 107th Legislative Congress that codified the formula in the Patriot Act of 2001. The other five programs that make up the HSGP were also authorized by congressional acts. To the extent that states define their “needs” according to how much the thought they would receive and how much they did receive compared to other states, the SHSP will never meet the needs of every state.

⁷¹ Brunet, Alexia. Ph.D. Dissertation. “Protecting only Part of our Homeland: Vulnerability across States and the Allocation of Federal Terrorism Funds”. Purdue University, May 2005.

⁷² Ladd, H. F., and J. Yinger. “The Case for Equalizing Aid.” *National Tax Journal* 47, no. 1(1994): 211-224.

⁷³ Normally in economic constrained optimization problems, the “neediest” resource would be determined by a shadow value; but here, there are at least two competing optimizations which could lead to different shadow values.

⁷⁴ This issue was raised in the testimony of Paul L. Posner before the Subcommittee on Terrorism, Technology and Homeland Security, Committee on the Judiciary, U.S. Senate, found in U.S. General Accounting Office (GAO), *Homeland Security: Reforming Federal Grants to Better Meet Outstanding Needs*, GAO-03-1146T, Washington D.C., September 3, 2003.

⁷⁵ Ibid.

⁷⁶ If need is defined as located evenly across all states and then by population, then grants are reaching communities in need. If, however, need is defined by factors such as terrorism vulnerability, which may be unevenly distributed across states and unrelated to population, then grants may not be reaching those in need.

⁷⁷ Grossman, P., and E. West. “Federalism and the Growth of Government Revisited.” *Public Choice* 79, no. 1-2(1994): 19-32.

Within the context of political debate concerning homeland security funding formulas and federal pressure to target grants to areas in “need”, the problem is that there is no consensus on a ranking which makes one state more or less vulnerable to terrorism, and there is no systematic method for determining which States are the “neediest”. Using a federal formula that allocates based on a minimum amount to each state and then share of population is not targeting funds directly to needs.

The problem of “unmet” needs arises when grants do not explicitly target “needs”, and when “needs” have not been articulated for a given grant program. When “unmet” needs are present, one result is that possible targets may receive less protection than they deserve. According to one account from the state of Maine, “80% of the region’s petroleum products, including liquefied propane, gasoline, diesel fuel, home heating fuel, kerosene and aviation fuel pas through Newington [Maine]. Knowing this, Asst. Fire Chief Cote believes that if DHS funds were distributed based on risk, his town would fare better. As it is, Newington has received less than most seacoast communities”⁷⁸ A grant methodology based on systematic assessment of risk would prevent the abovementioned situation. The following section describes methods for allocating funding based on linking needs with measured risk and vulnerabilities.

Summary

This section addressed three issues: (1) what level of government should provide homeland security programs, (2) what is the best grant mechanism to align incentives among federal, state and local actors, and (3) given the grant mechanism, is targeting in place such that needs are connecting with funds. The ability of states and local governments to prevent, prepare for, and respond to acts of terrorism is not the direct function of any of the three levels of government. Instead, this goal requires the collaboration of all three levels. Collaboration, in turn, requires the alignment of incentives among different governmental units, and it requires that funds target needs. The advantages of using formula grants to align incentives were discussed in comparison to other grant types. Yet formula grants require a formula that is effective. Inefficiencies arising from the current formula were raised in chapter 2.

Targeting was identified as one key deficiency with the current system for allocating funding. Funds do not target clearly defined objectives or benchmarks. The next chapter will describe methodologies for targeting funds with objectives.

⁷⁸ Ibid.

4. ALTERNATIVE DISTRIBUTION FORMULAS AND MECHANISMS FOR ALLOCATING FEDERAL FUNDS

Introduction

Previous chapters addressed inefficiencies arising from the design of current SLGCP grant funding programs. Problems associated with grant design can be summarized as falling within three areas. Alternatives listed as suggestions can be combined and are not mutually exclusive.

Problems with Grant Design and Suggestions	
▶	Problem: Grant timing and distribution ➤ <i>Suggestion:</i> Grants can be allocated to state governments, directly to local governments, directly to targets, or to a Metropolitan Planning Organization (MPO) or other regional entity
▶	Problem: Targeting Funds (the allocation formula) ➤ <i>Suggestion:</i> Systematic risk-based criteria can be used to allocate funding to the “neediest” areas. Create a list of factors to be used state-wide and nation-wide. Consider a smaller risk-based minimum in line with other formula grant programs.
▶	Problem: Aligning Incentives (type of grant program) ➤ <i>Suggestion:</i> Systematic risk-based criteria can be used to allocate funding to jurisdictions using varying formula/matching/MOE requirements.

4.1 Grant Timing and Distribution

Presently, the Federal government uses state governments to distribute formula funding to local governments under a “pass-through” requirement. The alternative to allocating funding to a state government, which then passes funding to local governments, is for the Federal government to:

- Allocate funding directly to local governments, or
- Allocate funding through a regional organization such as a Metropolitan Planning Organization (MPO).

Shortly after 9/11, the U.S. Conference of Mayors brought to Washington more than 200 mayors, police and fire chiefs, emergency managers, and public health officials. Mayors

expressed concern over the state handling of their homeland security funding based on past experience in working with their states on other public service programs. Fearing that that funds would be diluted and delayed and, worse, that they would not have a say in deciding how funding would be used in their cities, the group convened and drafted the organization's "National Action Plan for Safety and Security in America's Cities," calling for a federal block grant that would provide homeland security funding directly to the cities, not through the states, to help meet local needs for police and overtime, personnel, training, communications and rescue equipment, and security measures to protect airports, ports, utilities public transport, and critical infrastructure. A year and a half later, Congress enacted appropriations bills funding state and local homeland security programs without the direct federal funding to cities that mayors had sought. According to two previously mentioned surveys conducted by the U.S. Conference of Mayors, the Mayor's fears have been realized.

One study that presents a methodology for distributing funding based on risk considers the distribution of funding by the federal government directly to jurisdictions with targets.⁷⁹ In this model, the state government seamlessly passes through 100% of grant funding to jurisdictions with identified risk. In this way, this study considers the elimination of the state mechanism for allocating funds to local governments.

Another consideration is funding local governments through a Metropolitan Planning Organization. Every metropolitan area with a population of more than 50,000 persons must have a designated Metropolitan Planning Organization for transportation to qualify for federal highway or transit assistance. MPOs are responsible for planning, programming and coordination of federal highway and transit investments and could serve as coordinators of homeland security grants.

4.2 Changing the Funding Formula based on Systematic Assessment of Risk

While some legislative approaches suggest changing the grant funding formula to include "faster" funding for first responders (as in the title of House Bill 1544), thereby addressing the first problem, nearly all legislative proposals address redesigning the funding formula to provide "smarter" funding as well. A distribution formula that included risk would examine more than one factor; it would reduce the "small-state" minimum, and it would "target" funds with needs (needs articulated in terms of risk).

Discussion over the funding formula has focused on at least two subjects: how to measure the different risks to different areas, and how much discretion should be given to DHS to determine the risks to different areas. These questions are:

- ! *What* indicates risk to an area?
- ! *Who* decides what those indicators are?

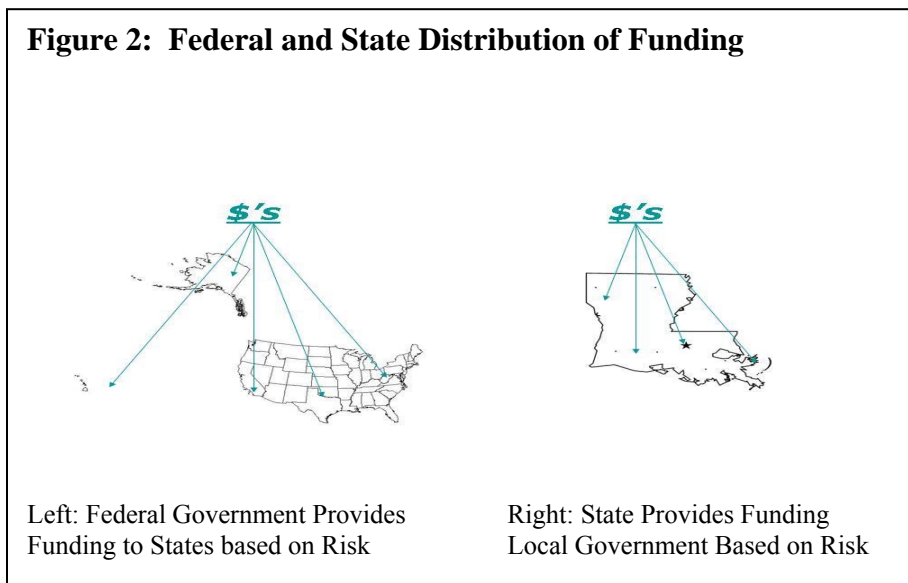
The first issue is the question. Determining risks to different geographic areas

⁷⁹ Brunet, Alexia. Ph.D. Dissertation. "Protecting only Part of our Homeland: Vulnerability across States and the Allocation of Federal Terrorism Funds". Purdue University, May 2005.

across the United States requires the identification of terrorism targets for each State, a task that relies upon a combination of state practices, academic theories of risk assessment, private industry actuarial insurance models of terrorism risk, public sector assessment of risk.

Systematic Assessment of Risk: State Practices

Another alternative to funding states based on a formula that includes a state minimum plus a share based on population is to fund states according to measures of terrorism risk in the state. Figure 2 presents this approach. The Federal government provides funding to states based on risk in the same way as states have been providing funding to local governments based on risk. The DHS Inspector General reported that states handle first responder grants differently. States may use population, threat, risk, or the governor's discretion to disburse funds.⁸⁰ Examples of approaches taken by different states to allocate homeland security funding to local governments identify a list of state-level systematic models of risk and can be used in a nation-wide assessment of risk.



The U.S. Conference of Mayors conducted two surveys of Homeland Security grant programs, one survey in 2003 and a follow-up survey in 2004 with a response rate of 168 and 215 cities. Cities were asked to describe the criteria used by their states to allocate state homeland security program (SHGP) funds to local governments.⁸¹ The results differ for each survey year. For example, 57% of cities in 2003 and 26% in 2004, stated

⁸⁰ DHS, Office of Inspector General, An Audit of Distributing and Spending “First Responder” Grant Funds, OIG-04-15, March 2004, p. 12.

⁸¹ As defined in the Conference Report accompanying the Department of Homeland Security Appropriations Act of 2005, the term “local unit of government” means “any county, city, village, town, district, borough, port authority, transit authority, intercity rail provider, commuter rail system, freight rail provider, water district, regional planning commission, council of government, Indian tribe with jurisdiction over Indian country, authorized tribal organization, Alaska Native village, independent authority, special district, or other political subdivision of any state.”

that they received allocations based on population density; 40% of cities surveyed in 2003 and 20% in 2004, said allocations were based on existence of potential threat; 37% of cities surveyed in 2003 and 18% in 2004 said presence of critical infrastructure determined allocations; 20% of cities surveyed in 2003 and 9% in 2004 identified other criteria including base plus population, regional priorities and/or approach, needs assessment, the number of first responders, and competitive state grant processes; 27% of cities surveyed in 2003 and 30% in 2004 did not know what criteria their state used to allocate the funds. Based on the survey results, states allocate funding based on one factor or a combination of these factors:

- ▶ Population Density
- ▶ Critical Infrastructure
- ▶ Competitive State Grant Process
- ▶ Risk Based measures
- ▶ Potential Threat
- ▶ Base plus population
- ▶ Needs Assessment
- ▶ Regional Priorities

States provide the testing ground for implementing a systematic assessment of risk. While the Federal government has not changed the allocation formula in over five years, states annually change or update their formula for distributing homeland security funding. From 2003-2005, the state of Indiana has changed its formula three times to include more risk factors as well as different priorities for those factors. This year, the state of New Hampshire changed its formula for allocating grants to local governments from population-based to risk-driven. There is evidence that changes in formulas alter economic incentives. Following the formula change in New Hampshire, the town of Seabrook rose to the top of the list for hosting a nuclear power plant. According to one account, “it was after that, that the town received \$360,000 to upgrade communications for the police dispatch center. Prior to that, the town of Seabrook had only received \$35,000 during the first two rounds, when Fire Chief Brown found nothing he needed on the list of authorized items”.⁸² This single anecdote alludes to the possibility that the existence of different formulas used by states to allocate funding may alter investment and location incentives (perhaps as private sector firms realize lower liabilities when the federal government provides funding to the jurisdiction).

Another option for risk-based allocation is to provide funding (either in a formula grant program or a project grant program) using factors as are used in the UASI funding/ UASI discretionary allocation⁸³: credible threat, presence of critical infrastructure, vulnerability, population, population density, law enforcement investigative and enforcement activity, and the existence of formal mutual aid agreements. Certainly the list of factors would expand to include risks faced by coastal areas, rural areas, major borders, etc.

⁸² ⁸² Dinan, Elizabeth, Homeland Security a Cash Cow for Maine Departments. April 19, 2005. <http://www.officer.com/article/printer.jsp?id=22995&siteSection=8> originally posted in the Portsmouth Herald.

⁸³ DHS, Office of Domestic Preparedness, Fiscal Year 2005 HSGP Guidelines and Application Kit, p.1.

Systematic Assessment of Risk: Academic Contributions

One recent academic study aims to formulate a systematically way to compare terrorism risk across states.⁸⁴ This study begins by identifying a State which uses risk-based measures for allocating funding to local governments. State-level government data are used to infer the optimal funding levels to cover expected damages associated with those infrastructure categories:

- ▶ Population Density and Population
- ▶ Hazardous Material Production
- ▶ Interstate Highways
- ▶ Primary Airports
- ▶ Confined Feeding Operations
- ▶ Federal Courts
- ▶ Hospitals
- ▶ Public Water Use
- ▶ Large Universities
- ▶ Port Capacity

In this way, the study presents a risk based methodology for homeland security funding which involves applying risk measures (and a ranking of priorities) identified at the state-level, to all states.⁸⁵ A new, risk-based funding formula is introduced for allocating federal funds to states based on a geographical distribution of and exposure to infrastructure categories as terrorist targets. Current allocations are then compared to projected allocations based on the new formula, which includes terrorism risk.

Among other findings, the study shows that for any given state, using risk-based measures to allocate funding yields a different allocation from the current homeland security allocations. For the majority of States, the two formulas provide different levels of grant funding. The results also suggest that allocations based on terrorism risk differ from allocations to all of the six grant programs in the Homeland Security Grant Program. Combining the SHSP program with the UASI does not alter the findings.

This study illustrates that alternative approaches to allocating homeland security funding yield different results. The empirical evidence that the Federal government under-funds and over-funds certain States and certain classes of targets by using the SHSP formula (and the HSGP formula) has important implications for government policy makers.⁸⁶ For one, the fact that some jurisdictions and targets may be under-funded or even over-funded implies that a more efficient allocation of federal resources is possible. Under-funding of jurisdictions and targets may result in geographic weaknesses thereby defeating homeland security goals to protect the nation against terrorist attack. This economic study can be used to further the study of risk-based homeland security grant allocation.

Systematic Assessment of Risk: Non-Governmental Organizations

⁸⁴ Brunet, Alexia. Ph.D.Dissertation. "Protecting only Part of our homeland: vulnerability across states and the allocation of federal terrorism funds". Purdue University, May 2005

⁸⁵ Ibid.

⁸⁶ Ibid.

Describing the current grant structure as “ineffective,” one study by the Heritage Foundation listed six factors that should be weighted in the formula for grants⁸⁷:

- ▶ Population
- ▶ Large Gathering Places (Stadiums)
- ▶ Hazardous Chemical Production Storage
- ▶ Threat Assessments
- ▶ Vulnerability Assessments of Critical Infrastructure
- ▶ Percentage of Counties/Cities Participating in mutual aid

Systematic Assessment of Risk: Insurance Industry

The methods used by the private insurance industry in its modeling of terrorism risk play a critical role in identifying targets in each state and can be used to identify factors to consider in drafting a funding program. To be sure, models of terrorism risk existed prior to 9/11, just as terrorist attacks on the U.S. existed prior to 9/11. For example, the bombing of the World Trade Center in 1993, the bombing incident at the Atlanta Olympics in 1996 and the bombing of the Murrah Federal Building in Oklahoma City can be attributed to terrorism⁸⁸. Yet, prior to 9/11, terrorism coverage was included in insurance policies. After 9/11, insurance companies began to charge a premium for terrorism coverage. In addition, the Federal Terrorism Risk Insurance Act of 2002 (TRIA) requires all property/casualty insurers writing commercial lines policies to offer coverage for losses caused by international terrorism within the United States. To comply with the law, insurers need to separately report the portion of the premium being charged a policyholder to cover possible acts of terrorism. TRIA spurred the development of a market for terrorism risk insurance and for the development of terrorism models to price these risks.

The development of a market for terrorism insurance coverage developed post 9/11, and with it came the development of insurance models to price this coverage. Private sector models to assess terrorism risk developed in the wake of 9/11 losses affecting liability, property, business interruption, aviation, life and worker’s compensation insurance markets.⁸⁹ According to the National Council for Compensation Insurance (NCCI), terrorism is an emerging catastrophic exposure for the workers compensation, property and casualty compensation lines of insurance. Terrorism coverage can be purchased for insurance policies for workers compensation, life, accident and health, disability, property and casualty compensation lines of insurance.

Each insurance policy will have a different price depending on the liability that is being priced, and the area of need. In contrast, grants for first responders do not target a specific need. In the case of the SHSP, the federal statutory language in the grant

⁸⁷ Michael Scardaville, “Adding Flexibility and Purpose to Domestic Preparedness Grant Programs,” The Heritage Foundation, Background No. 1652, May 6, 2003 at [<http://www.heritage.org/Research/HomelandDefense/bg1652.cfm>], visited 06/10/05

⁸⁸ National Hazards Center, 2001.

⁸⁹ Kunreuther, H., E. Michel-Kerjan, and B. Porter. “Assessing, Managing, and Financing Extreme Events: Dealing with Terrorism.” National Bureau of Economic Research Working Paper No. 10179, National Bureau of Economic Research, Inc., Cambridge (2003).

provides little guidance on the allocation of funds to target outcomes. First and foremost, any ranking of targets requires a statement of values, in terms of relative importance of different outcomes (morbidity, mortality, etc.)⁹⁰ A ranking of targets can only be standardized [for all States] if a governing body were to make the judgment call.⁹¹

Insurance industry data can be used in a systematic assessment of risk inasmuch as insurance rates are proxies for the economic and other damage resulting from a terrorist incident. For example, according to the Insurance Service Office (ISO), insurers of workman's compensation coverage assess and price terrorism risk with the objective of minimizing net losses related to employee injuries and fatalities. Life and property insurers consider some targets such as oil refineries, airports, athletic arenas, and chemical manufacturing facilities as attractive to terrorists that would result in significant loss of life and property. Life and property insurers also believe that while large population masses enhance the potential for human loss, less populated areas have primary and indirect terrorism risks. For example, a nuclear power plant or pipeline in a remote area may serve as a primary target or risk; a food supply chain that may be contaminated at its rural headwaters for larger-scale contamination may serve as an indirect risk.

For insurers, catastrophic modeling provides an assessment of how much insurance is necessary, and how they should price risk. Since their development, terrorism risk assessment models have been used in the insurance industry and applied to thousands of potential targets, they provide a picture of the relative risk by state, city, zip code and even individual location. The goals and objectives of the private insurance industry and the public sector are not aligned -- the private sector maximizes profits while the public sector maximizes social welfare or electoral votes -- it remains beneficial to examine factors used in the private models. This section seeks to learn from the experience of modelers in this field in two dimensions: (1) developing techniques (probabilistic and other models) used to model events with limited historic data, and (2) identifying factors to consider when assessing terrorist risk across states.

In recent years, techniques and data analyses used for modeling natural hazards such as hurricanes and tornados have been transferred to modeling terrorism. Models for pricing terrorism risk borrow from traditional models used to assess traditional catastrophic risks. Risk assessors use probability models to calculate vulnerability, threat, and criticality (or relative importance) of assets and to estimate the chance of a specific set of events occurring and/or the potential consequence(s) of such events.⁹² Risks and losses resulting from acts of terrorism are more difficult to model compared to modeling risks and losses resulting from natural hazards. Historical data on terrorist attacks is limited, and where it does exist, it is classified to government agencies for national security reasons. In addition, terrorism is associated with intentional loss rather than natural

⁹⁰ Fischhoff, 2004, personal communication.

⁹¹ Ibid.

⁹² Kunreuther, H., E. Michel-Kerjan, and B. Porter. "Assessing, Managing, and Financing Extreme Events: Dealing with Terrorism." National Bureau of Economic Research Working Paper No. 10179, National Bureau of Economic Research, Inc., Cambridge (2003).

disaster. Yet, even if it is more difficult to model terrorist events, modelers can still estimate the consequences resulting from a terrorist attack.⁹³

Risk modelers have developed methods for overcoming some difficulties in modeling terrorism versus modeling natural catastrophic events. Currently, there are three prominent private sector loss estimation models for terrorism which incorporate (1) frequency, (2) location and (3) hazards, and (4) severity. The objectives and methodologies used in these models are presented in Table 12. The two companies that insure terrorism risk, The National Council on Compensation Insurance (workman's comp), and The Insurance Services Office (property and casualty), have their own risk modeling team. In 2002, AIR Worldwide, a subsidiary of the Insurance Service Office, launched a Loss Estimation Model. EQECAT then developed a model for the National Council on Compensation Insurance (NCCI). The third company which models terrorism risk, Risk Management Solutions (RMS), also began to develop a U.S. Terrorism Model. The ISO, RMS, and NCCI models are used to estimate expected financial losses of potential acts of terror and to recommend terrorism coverage rates to insurers. With the assistance of a team of experts in counter-terrorism, AIR (ISO) identified a database of over 300,000 potential targets that include commercial, industrial, educational, medical, religious, and governmental facilities, and trophy targets (such as stadiums and convention centers) carrying a higher probability of attack. In a recent announcement, a panel of AIR counter terrorism experts determined that there is an increased threat to softer, but still high-value, targets such as transportation facilities and prominent commercial buildings, and a lowered threat to well-protected sites, such as federal facilities and nuclear plants.

Systematic Assessment of Risk: Public Sector Contributions and Guidance

Reports promulgated by the Federal Emergency Management Agency (FEMA) and The Information Analysis and Infrastructure Protection Directorate (IAIP), in addition to the National Preparedness Strategy presented in Homeland Security Presidential Directive-8 (HSPD-8) provide useful guidance for systematic risk-based allocation of funds. States respond to this guidance by submitting their grant applications and listing their state-specific vulnerabilities and risks. Funding should link the state strategies with the national initiatives.

The 9/11 Commission Report recommended, among other things, that the Federal government distribute federal homeland security assistance to state and local governments based on risk and vulnerability.⁹⁴ The 9/11 Commission recommends that risk assessments consider population, population density, vulnerability, and the presence of critical infrastructure within each state.

⁹³ See various reports from the Department of Homeland Security, Center for Risk and Economic Modeling of Terrorist Events at the University of Southern California.

⁹⁴ National Commission on Terrorist Attacks Upon the United States, The 9/11 Commission Report (Washington: GPO, July 22, 2004) p. 396.

Table 12: Three Private Sector Terrorism Loss Estimation Models

AIR Terrorism Loss Estimation Model

Developed For:	Insurance Service Office (ISO)
Model objective:	To estimate risk to insurers of lines of property, workman’s comp., life, accident and health insurance due to potential events.
Assumption:	Attack can occur anywhere in U.S; Uses Delphi method to develop estimates for frequency, location and severity
Methodology and Factors:	Probabilistic Methodology. Components: (1) Identify potential targets in each state: (database of 300,000 potential targets) include commercial, industrial, educational, medical, religious, and government facilities. A subset of trophy targets carries greater probability; (2) Analyze various threats, Targets and weapons are functions of individual treats (groups); (3) Select weapons: conventional and CBRN; (4) Estimate damage: weapons, plus target and surrounding buildings.
Source:	http://www.iso.com/products/4100/prod4105.html

EQECAT Terrorism Model

Developed For:	National Council for Compensation Insurance (NCCI)
Model objective:	To estimate risk to workman’s compensation insurers due to potential terrorism events
Assumption:	Attack can occur anywhere in US; Frequency: one terrorist event per year.
Methodology and Factors:	Probabilistic Methodology. Apply the casualty footprint to an assigned target and calculate the extent of the casualties to the covered workers within the footprint. Components: (1) Identify worker compensation exposure: location, number and type of employees. Use business information databases at census block level; (2) Select weapon types and their effects: conventional weapons and CBRNE weapons. Calculate “casualty footprint”, the physical distribution of the intensity of the agent as it spreads out from initial target; (3) Select Targets: more than 10 million events and hundreds of thousands of "high probability" terrorism targets (tall buildings, government buildings, airports, ports, military bases, prominent locations, nuclear power plants, railroads, and stations, dams, chemical facilities); (4) Estimate relative frequencies of attack: assignment of an annual frequency based on availability of weapon, attractiveness of target and region; (5) Consider targets, population density, targets that will advance the terrorist agenda.
Source:	http://www.findarticles.com/p/articles/mi_m0BJK/is_5_14/ai_99699182

Risk Management Solutions Terrorism Model

Developed For:	Risk Management Solutions, Inc. (RMS)
Model objective:	Estimates the probability and cost of property damage, business interruption, casualties, injuries caused by 16 different "modes" of attack.
Assumption:	Attack can not occur in any place -- only in 1,500 sites.
Methodology and Factors:	Methodology: Game Theoretical Components: (1) 1,500 probable targets, Mainly structures, facilities, landmarks and business districts of major cities; (2)modes of attack include attacks by conventional chemical, biological, radiological and nuclear (CBRN) weapons. For each scenario, the RMS model offers high-resolution simulations of all the principal agents of damage and loss, including blast pressure, and airborne and ground-based contaminants.
Source:	http://www.findarticles.com/p/articles/mi_m0BJK/is_5_14/ai_99699182

The 2001 Patriot Act definition of critical infrastructure also provides some guidance to incorporate critical infrastructure within a measure of risk assets. The Act defines critical infrastructure as those “systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters”.

FEMA and IAIP have been instrumental in providing guidance on assessing terrorism risk and identifying targets. One FEMA publication identifies a four-step process to risk assessment: (1) identify hazards, (2) profile hazard events, (3) inventory and prioritize assets, and (4) estimate losses. Communities first identify possible terrorist threats in several areas: conventional bomb, chemical agent, arson, armed attack, biological agent, cyber-terrorism, agro-terrorism, radiological agent, nuclear bomb, hazard material release. After considering the differences among the hazards, planners inventory and prioritize their assets. The FEMA Critical Infrastructure Assurance Office provides guidance for conducting an inventory of assets.⁹⁵ Table 13 presents the categories of critical infrastructure used by FEMA. This list provides guidance on what critical facilities, sites, and systems FEMA considers deserves priority as a possible terrorist targets. The Information Analysis and Infrastructure Protection Directorate of the DHS assesses the nation’s nuclear power plants, water facilities, telecommunications, networks and transportation systems.

After critical sectors are defined, developing a prioritization of hazard mitigation projects involves weighing (1) the relative importance of the various facilities and systems in asset inventory (criticality assessment), (2) the vulnerabilities of those facilities (vulnerability assessment), and (3) the threats that are known to exist (threat analysis).⁹⁶ Estimating losses is the final step in which losses are categorized in terms of people, assets and functions.⁹⁷

Next, the Homeland Security Presidential Directive 8, (HSPD-8), to be fully implemented in FY2006, provides a framework from which a mechanism for systematic assessment of risk can be articulated. HSPD-8 outlines “how to strengthen the preparedness of the United States to prevent, protect against, respond to, and recover from terrorist attacks, major disasters and other emergencies, as well as how the Federal government proposes to invest homeland security resources in order to achieve the greatest return on investment for our Nation’s homeland security”.⁹⁸ While stressing that the National Preparedness Guidance documents for HSPD-8 do funding formulas, the documents do identify core capabilities we want to possess as a Nation and, therefore, do drive how we prioritize our Federal investments.⁹⁹

⁹⁵ Federal Emergency Management Agency (FEMA). “Critical Infrastructure Assurance”, (2004). HSPD-8 expands this category to include “Critical infrastructure and key resources (CI/KR) provide the essential services that sustain our national security, economic vitality, and American way of life.”

⁹⁶ Ibid.

⁹⁷ Ibid.

⁹⁸ Interim National Preparedness Goal: Homeland Security Presidential Directive 8: National Preparedness. Department of Homeland Security, March 31, 2005.

⁹⁹ National Preparedness Guidance: Homeland Security Presidential Directive 8: National Preparedness

Table 13: Federal Emergency Management (FEMA): Identifying critical facilities, sites and systems in local communities

1. Local, state, and federal government offices
 2. Military installations, including Reserve and National Guard component facilities
 3. Emergency services
 - Backup facilities, Communication centers, Emergency operations centers, Fire/Emergency Medical Service (EMS) facilities, Law enforcement facilities
 4. Politically or symbolically significant sites
 - Embassies, consulates, Landmarks, monuments, Political party and special interest group offices, Religious sites
 5. Transportation infrastructure components
 - Airports, Bus stations, Ferry terminals, Interstate highways, Oil/gas pipelines, Railheads/rail yards, Seaports/river ports, Subways, Truck terminals, Tunnels/bridges
 6. Energy, water, and related utility systems
 - Electricity production, transmission, and distribution system components, Oil and gas storage/shipment facilities, Power plant fuel distribution, delivery, and storage, Telecommunications facilities, Wastewater treatment plants, Water supply/purification/distribution systems
 7. Telecommunications and information systems
 - Cable TV facilities, Cellular network facilities, Critical cable routes, Major rights of way, Newspaper offices and production/distribution facilities, Radio stations, Satellite base stations, Telephone, Trunking and switching stations, Television broadcast stations
 8. Health care system components
 - Emergency medical centers, Family planning clinics, Health department offices, Hospitals, Radiological material and medical waste transportation, storage, and disposal, Research facilities, laboratories, Walk-in clinics
-

Source: FEMA, Critical Infrastructure Assurance Office, 2004

HSPD-8 determines “how well” the nation should prepare for acts of terrorism, whereas the National Response Plan, (NRP) determines “what” needs to be done to manage a major incident, and the National Incident management System (NIMS) determines “how” to manage a major incident. The HSPD-8 develops a capabilities-based national strategy combining: (1) National Planning Scenarios (see Table 14), (2) a Universal Task List (see Figure 2), and (3) a Target Capabilities List (TCL)(see Figure 3).

Table 14: HSPD-8 National Planning Scenarios

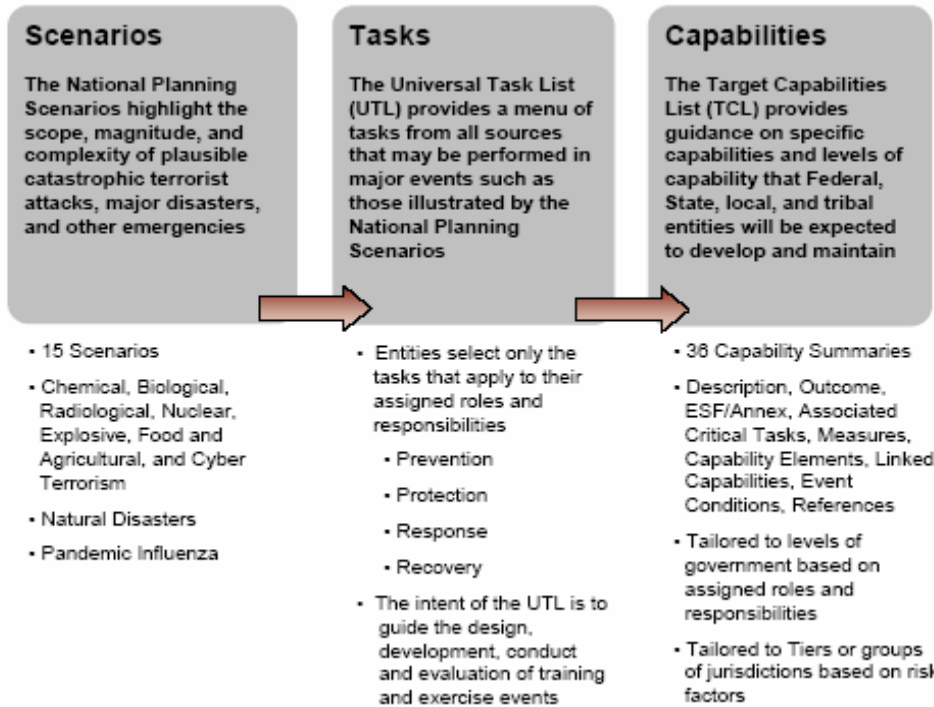
Scenario 1:	Improvised Nuclear Device
Scenario 2:	Biological Attack – Aerosol Anthrax
Scenario 3:	Biological Disease Outbreak – Pandemic Influenza
Scenario 4:	Biological Attack – Plague
Scenario 5:	Chemical Attack – Blister Agent
Scenario 6:	Chemical Attack – Toxic Industrial Chemicals
Scenario 7:	Chemical Attack – Nerve Agent
Scenario 8:	Chemical Attack – Chlorine Tank Explosion
Scenario 9:	Natural Disaster – Major Earthquake
Scenario 10:	Natural Disaster – Major Hurricane
Scenario 11:	Radiological Attack – Radiological Dispersal Devices
Scenario 12:	Explosives Attack – Improvised Explosive Device
Scenario 13:	Biological Attack – Food Contamination
Scenario 14:	Biological Attack – Foreign Animal Disease (Foot & Mouth Disease)
Scenario 15:	Cyber Attack

Source: HSPD-8 National Preparedness Guidance, DHS, April, 2005

The 15 scenarios in Table 14 list plausible terrorist attacks (and natural disasters). DHS will be responsible for maintaining the National Planning Scenarios, whereas Federal, State, Local, and Tribal entities at all levels of government will be responsible for using the scenarios to evaluate and improve their capabilities to perform their assigned missions and over 200 tasks in major events. Figure 2 illustrates how the scenarios combine with “tasks” and “capabilities” (36 capabilities to be developed and maintained by various levels of government to prevent, protect against, respond to and recover from terrorist attacks and major disasters). Figure 3 lists the capabilities. Beginning in FY 2006, States will be required to justify in their grant applications how current and future funds will be applied to strengthen capabilities related to the National priorities.

Senate and House bills mentioned earlier discuss funding “capabilities”, thereby implicitly drawing reference to the language in HSPD-8 and the Goal.

Figure 2: Capabilities-Based Planning: Defining Readiness Targets



Source: HSPD-8 National Preparedness Guidance, DHS, April, 2005

Figure 3: Target Capabilities

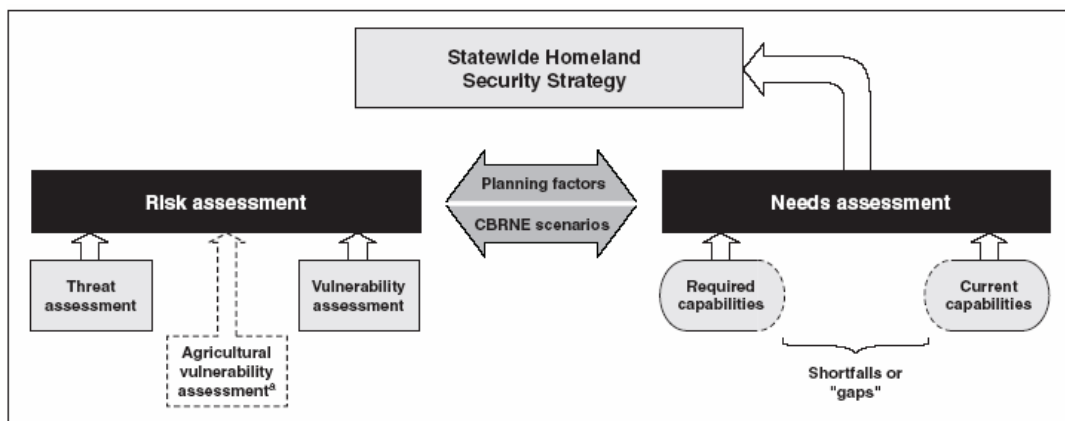


*Linked to the four Capability-Specific National Priorities

Source: HSPD-8 National Preparedness Guidance, DHS, April, 2005

Given the FEMA guidelines and HSPD-8 and other directives, states perform vulnerability analysis prior to applying for grant funding. Data which is being collected through already-existing Federal data collection requirements can be used to link funding allocations with assessments of terrorism risk. For example, one study finds that “allocation decisions should be based on assessments of drinking water utilities’ vulnerabilities, which the utilities are required to prepare by the Public Health and Security and Bioterrorism Preparedness and Response Act of 2002.¹⁰⁰” The federal government currently collects data from state governments on targets and critical infrastructure through the Homeland Security Grant Application process. Prior to receiving a grant allocation, states are required to submit a “Statewide Homeland Security Strategy” (SHSS) assessing state needs, risks, and vulnerabilities. Figure 4 displays the assessment process used to create the SHSS.

Figure 4: State Homeland Security Assessment and Strategy Development Process for Fiscal Years 1999-2003



Source: GAO based on ODP data.

^aIn fiscal year 2003, states and jurisdictions could also complete an optional agricultural vulnerability assessment in addition to the vulnerability assessment.

Source: General Accounting Office, “Homeland Security: Management of First Responder Grant Programs Has Improved but Challenges Remain”, GAO-05-121. February, 2005. p. 14. Note: in fiscal year 2003, States and jurisdictions could also complete an optional agricultural vulnerability assessment in addition to the vulnerability assessment.

Using the data received from states and other sources, the DHS has catalogued 33,000 critical infrastructure sites across the country, obtaining the information from state and local officials as well as the private sector.¹⁰¹ The critical information from the applications themselves can be used to create a nation-wide and state-wide mechanism for systematic assessment of risk. The reports can be drafted to collect measures that can be used to award funding based on the identified risks and vulnerabilities. In turn, the state can distribute based on state-wide risk factors cited in the grant application.

¹⁰⁰ General Accounting Office, “Drinking Water: Expert’s Views on How Federal Funding Can Best Be Spent to Improve Security”. GAO-04-1098T. September 30, 2004.

¹⁰¹ Ibid.

However, one concern with the use of current data, expressed in a letter to former DHS Secretary Tom Ridge from Democrats on the House Homeland Security Committee, is inconsistent methodology for extracting data about key assets around the country and incomplete and inadequate vulnerability assessments.¹⁰² According to Jim Turner of Texas, the ranking Democrat of the panel, on behalf of the panel, “The inconsistencies of critical infrastructure listings between cities suggest that the department's approach is not comprehensive enough to ensure that all the essential assets of our country are catalogued.”¹⁰³ If funding were linked explicitly to the critical infrastructure that state and local governments are being asked to submit then, in addition to outlining a systematic methodology, perhaps the reliability of the information collected would improve.

Summary

Allocating funding based on systematic risk assessment can aid in correcting current inefficiencies resulting from the allocation of homeland security funds. Current legislative approaches suggest changing the grant funding to include risk based allocations; yet pending legislation does not provide methodological guidance for performing risk-based assessment. This chapter provided approaches for formulating a risk-based approach. Academic approaches identified a list of factors that can be used in a systematic assessment of risk. Industry approaches and private sector insurance models added to this list. The “capabilities” as outlined by the HSPD-8 can play an important role in identifying “needs”. Yet, in its current form, the allocation formula does not appropriately link funding to “needs”. A distribution formula that included risk would examine more than one factor; it would reduce the “small-state” minimum, and it would “target” funds with needs (needs articulated in terms of risk). Yet, a distribution including risk would also need to adopt a methodology to update risks, and track risks.

¹⁰² “Democrats Criticize Homeland Security Vulnerability Assessments,” GOVEXEC.com, Aug. 4, 2004. <http://www.govexec.com/dailyfed/0804/080404tdpm.2htm>. (last accessed 06/05)

¹⁰³ www.GovExec.com

5. CONCLUSIONS

Vulnerabilities exposed following the terrorist attacks of September 11, 2001 highlight the need for the Federal government to allocate funding for the prevention and response to terrorist events based on terrorism risk (threat, vulnerability, consequence). However, the funding formula used by the State Homeland Security Program (SHSP) and other HSGP programs is based on a lump sum to all states plus an incremental amount distributed by population. Therein the formula does not explicitly address varying risks across States. Furthermore, the current distribution mechanism does not ensure that funding is received by local governments.

This report study provided the background necessary to formulate conclusions on several dimensions of the problem of developing a systematic method for allocating homeland security grant funding. After describing the array of homeland security grants and the historical development of these programs, the report launched into applying public finance concepts to the grant mechanism framework. The benefits of formula grants were introduced against other funding mechanisms. Several Legislative options for altering the homeland security grant program were introduced and compared. Finally, Chapter 4 presented several directions (private sector, public sector, academic) from which to approach the formulation of a methodology for risk-based allocation.

Five conclusions can be drawn from the case study findings. For each conclusion that can be drawn, suggestions for future research will be noted.

Conclusion #1: Any proposed risk-based solution to allocating funding will require a nation-wide *systematic* assessment of risk and vulnerability. The current formula used to allocate the DHS/SLGCP homeland security formula grant funding for first responders does not explicitly provide a prioritization strategy, nor does it link spending to assessments of risk. For example, DHS directs states and local governments to consider critical infrastructure (specific facilities) as any system or asset that, if attacked, would result in catastrophic loss of life and cause catastrophic economic loss;¹ however, funding is not linked to state or local endowments of critical infrastructure.

One study comparing current grant allocations to allocations based on a risk-based formulation, finds that the current formula for allocating funds to first responders implicitly prioritizes population over other targets such as pipeline miles, population density, interstate highways, federal courts, public water use, universities, confined feeding facilities, power generation, chemical manufacturing facilities. This study recommends altering the formula to allocate funding based on assessment of risk across several factors, including, but not limited to, population.

In addition, several congressional proposals have been advanced to alter the statewide funding formula to base it more directly on risk considerations. The GAO supports a risk-based approach to homeland security.¹⁰⁴ Other reports have concluded that funds must

¹⁰⁴ General Accounting Office, "Homeland Security: Management of First Responder Grant Programs and Efforts to Improve Accountability Continue to Evolve", April 12, 2005 (Washington, D.C) GAO-05-530T

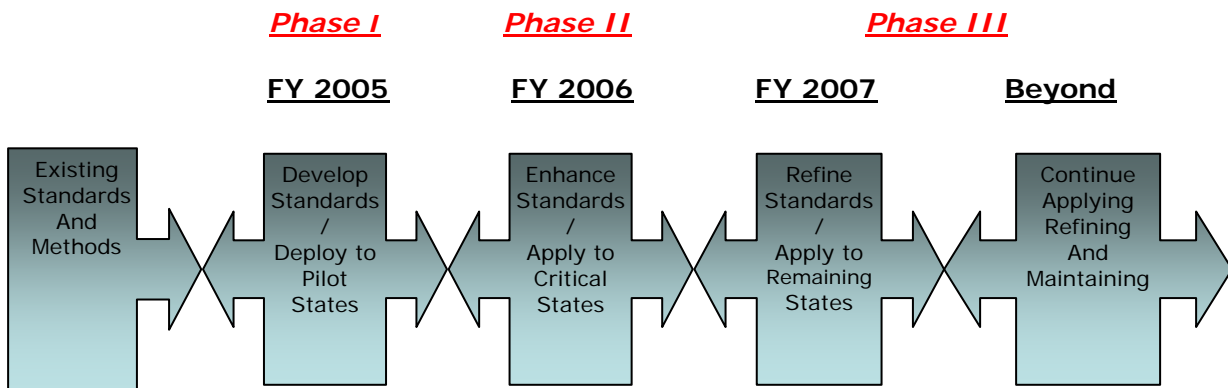
be allocated using a systematic approach. The GOA cited that “agencies such as the Coast Guard currently lack a systematic approach for explaining the relationship between the expenditure of resources and performance results in seaport security, limiting its ability to critically examine its resource needs and prioritize program efforts.”¹⁰⁵

- **Suggestion:** Future research will analyze methodologies for systematic risk assessment to be used for nation-wide and state-wide homeland security grant distribution. The creation of standards for a systematic assessment of risk across states is critical to any proposal that aims to allocate funding across states based on risk. At the state level *and* at the national level, standards can be created across three dimensions:

(1) Standardized criteria for assessing risk (factors used to assess risk across states)
(2) Standardized processes used for assessing risk (the methodologies used by states to assess their vulnerabilities and capabilities) developing and implementing strategies, performance goals, establishing baselines
(3) Standardized data management including developing and implementing data quality standards, collecting reliable data, analyzing the data, assessing the results, and taking action based on the results (the collection and tracking of data to allocate funding across states)

Standardization can be performed at the state level, and then at the federal level. Figure 5 describes phases of development of standardization processes.

Figure 5: Phases of Development



¹⁰⁵ General Accounting Office, “Maritime Security: Enhancements Made, But Implementation and Sustainability Remain Key Challenges”, Statement of Margaret T. Wrightson, Director, Homeland Security and Justice Issues, May 17, 2005 p. 28

During Phase I, CREATE can be instrumental in developing standards and deploying standards to States. In Phase II CREATE can play a role in enhancing standards and applying to standards to critical states. Phase III continues the development process by refining standards and applying standardization practices to remaining states.

Finally, the National Planning Scenarios in HSPD-8 were designed to “present a *standardized set* of plausible scenarios for major events or Incidents of National Significance and provide the foundation for development of capability requirements. The scenarios define a broad range of representative threats and hazards.”¹⁰⁶ These scenarios do not encompass the expansive list of possible scenarios which can be considered. Another consideration is that HSPD-8 describes Risk Analysis as “The capability to identify and prioritize hazards, assess vulnerabilities, and determine risks prior to and during an emergency.”¹⁰⁷ In the HSPD-8, Risk Analysis is a “protect mission” area in Figure 3. Risk analysis, however, can be used in all areas and arguably belongs in the “common area”.

Standardization of the factors to be used can be approached in two ways:

- (1) Specifying the risk factors in law, leaving limited discretion to DHS, and***
- (2) Specifying broad factors or concepts in law, giving more discretion to DHS.***

In the first approach Congress would determine the specific variables to consider in the funding formula. In the second approach, Congress would define the guiding principles behind homeland security grants, allowing more discretion to DHS. The bills pending in the legislature all favor the second approach. For example, the H.R. 1419, “Risk-Based Homeland Security Funding Act”, allocates funding based on an assessment of risk, threat, and vulnerabilities, determined by the DHS Secretary. Using the second approach is reasonable, given that factors may change given changes in threats, vulnerabilities and consequences.

Conclusion #2: The development of a nation-wide standardized methodology for assessing risk of terrorism must include evaluation of state-wide “best practices” for risk based allocation. Since the inception of the Homeland Security Grant Program, states practices have included using risk-based measures for allocating homeland security funds. More research needs to be performed to learn from state experiences in distributing funding based on risk. The various factors that states have identified as effective measures for risk can be used towards the creation of a systematic nation-wide assessment of risk. This assessment of state-wide practices “best practices” will guide the formulation of a nation-wide risk assessment process.

¹⁰⁶ DHS, National Preparedness Guidance, Homeland Security Presidential Directive 8: National Preparedness, April 27, 2005.

¹⁰⁷ Ibid, p. 24

- **Suggestion:** The DHS Center for Risk and Economic Analysis for Terrorist Events (CREATE) can play a vital role in both collecting and analyzing data on state-wide practices. A questionnaire can be developed and administered to all states to determine the formulas used by states to address their individual threats, risks, and vulnerabilities. The results from this survey will highlight factors and prioritization strategies that states use as they develop their allocations. The questionnaire would also provide insights that only individual state officials, given their institutional knowledge and geographical location, could provide.

Conclusion #3: The development of a risk assessment methodology naturally extends beyond identifying targets. While this report has presented sources for collecting data on targets, and suggests conducting a state-wide survey questionnaire, there remains the difficult question of how to assess probabilities and damage estimations for terrorist events in order to prioritize funding. Given a list of targets for which to provide funding, the next step is to assign probabilities and damage estimates to the likelihood that the target will receive a successful attack. Those estimates will provide the necessary information to conduct a criticality assessment necessary for prioritizing investments.

- **Suggestion:** Numerous applications of probabilistic models for estimating damage are found in the engineering contexts. CREATE, and the University of Southern California, house the academic resources necessary to address issues raised in this conclusion. For example, the CREATE Risk Analyst Workbench (RAW) is a software tool that provides modeling and analysis capabilities for risk analysis. RAW can be used to provide the threat and counter-measure characterization, probability estimation, outcome definition, and scenario creation. Further, RAW could be used to rate outcomes of threats, effectiveness of counter-measures, which ultimately can be used to prioritize investments and allocations. Finally, resources from other DHS Centers for Excellence can be used to estimate damages and probabilities, realizing the unique capabilities of the different Centers.

Conclusion #4: The mission of DHS SLGCP first responder grant funding is “to enhance the ability of states, territories, urban areas and local agencies to prevent, deter, respond to, and recover from threats and incidents of terrorism”.¹ Yet, it is difficult to determine whether state and local governments are investing uniformly across the functions. Survey data collected by independent organizations suggests that spending is not being distributed across eligible activities and is focused primarily on equipment. Evidence also suggests that too much emphasis has been placed on “response” versus the ability to “prevent”.¹⁰⁸ Two questions emerge: (1) is it possible to link state and local investments to the mission functions? (2) If so, to what extent do states and local governments invest in preventing versus deterring versus responding versus recovery as compared to the

¹⁰⁸ James Jay Carafano, Ph.D., Paul Rosenzweig, and Alane Kochems, “An Agenda for Increasing State and Local Government Efforts to Combat Terrorism”, The Heritage Foundation, No. 1826, February 24, 2005

areas of planning, personnel, training and exercises, and does this priority compromise the mission?

- **Suggestion:** Research on this issue can be combined with research proposed for *Conclusion #2*. A survey instrument can ask respondents to link spending with activities. Activity-level data can be combined with DHS purchase data, thereby providing the level of detail necessary to approach this question.

Conclusion #5: Any risk-based solution must engage both private sector stakeholders and public sector elected stakeholders. Involving private sector actors is critical given that over 85% of the critical infrastructure in the U.S. is controlled by the private sector.¹ Yet involving the private sector in sharing information is a sensitive topic. The business community has expressed deep concern over the sensitivity of sharing sensitive or classified information.

- **Suggestion:** CREATE can aid Congress in presenting sound economic reasoning for the private sector to assist in protecting the nation. Several suggestions have been made. For example, one solution has been the streamlining of data on critical infrastructure that is available on the internet.¹⁰⁹ Efforts for Congress also include strengthening the Protected Critical Infrastructure Information Program (PCII) to encourage the private sector to share sensitive and proprietary business information about critical infrastructure with the federal government.¹¹⁰ At the same time, CREATE can play a role in engaging the private sector with simulations and consequence models presenting the benefits and costs of information-sharing. In addition, solutions need to be cognizant of the political decision-making environment which authorizes homeland security grant spending. A standardized system of allocating federal funding relies closely upon the collaboration of elected officials. CREATE and other DHS Centers for Excellence must continue to actively engage Congressional committee members involved in homeland security issues.

Conclusion #5: Analysis of grant funding naturally extends to portfolios of other Homeland Security investments.

- **Suggestion:** CREATE can play an instrumental role in research on portfolio allocation. Portfolio allocation requires determination of whether an investment is worthwhile, whether it is worthwhile relative to a set of alternative investments, and, considering the interactive effects among investments, whether investments have complementary and synergistic benefits that exceed their individual benefit or whether an investment in one area may have the counter-productive effect of elevating the risk in other areas.

¹⁰⁹ Baker, John, et al., "Mapping the Risks: Assessing the Homeland Security Implications of Publicly Available Geospatial Information". RAND Corporation, 2004

¹¹⁰ For a discussion of methods to be used for engaging the private sector in the National Critical Infrastructure Plan, see: Kochems, Alane. "Who's on First? A Strategy for Protecting Critical Infrastructure". The Heritage Foundation. No. 1851, May 9, 2005.

Table 15: FY2005 State Allocations (in mil. \$, except per capita amounts)

State	SHSGP	UASI	LEITPP	CCP	EMPG	MMRS	Total	Per Capita
Alabama	\$17.7	—	\$6.4	\$0.2	\$2.9	\$0.9	\$28.1	\$6.24
Alaska	\$9.4	—	\$3.4	\$0.1	\$1.5	\$0.5	\$14.9	\$24.83
Arizona	\$20.0	\$10.0	\$7.3	\$0.3	\$3.2	\$0.9	\$41.7	\$7.58
Arkansas	\$13.9	—	\$5.0	\$0.2	\$2.3	\$0.2	\$21.6	\$8.00
California	\$84.6	\$148.3	\$30.8	\$1.1	\$13.8	\$4.1	\$282.7	\$8.05
Colorado	\$17.8	\$8.7	\$6.5	\$0.2	\$2.9	\$0.7	\$36.8	\$8.18
Connecticut	\$15.5	—	\$5.6	\$0.2	\$2.5	\$0.2	\$24.0	\$6.86
Delaware	\$9.7	—	\$3.5	\$0.1	\$1.6	—	\$14.9	\$18.63
D.C.	\$9.2	—	\$3.3	\$0.1	\$1.5	—	\$14.1	\$23.50
Florida	\$44.7	\$30.9	\$16.3	\$0.6	\$7.2	\$1.6	\$101.3	\$6.07
Georgia	\$26.7	\$13.3	\$9.7	\$0.3	\$4.3	\$0.5	\$54.8	\$6.37
Hawaii	\$10.7	\$6.5	\$3.9	\$0.1	\$1.7	\$0.2	\$23.1	\$19.25
Idaho	\$10.9	—	\$4.0	\$0.1	\$1.8	—	\$16.8	\$12.92
Illinois	\$35.3	\$48.0	\$12.8	\$0.4	\$5.8	\$0.2	\$102.5	\$8.13
Indiana	\$21.3	\$5.7	\$7.8	\$0.3	\$3.5	\$0.5	\$39.1	\$6.31
Iowa	\$14.3	—	\$5.2	\$0.2	\$2.3	\$0.2	\$22.2	\$7.66
Kansas	\$13.8	—	\$5.0	\$0.2	\$2.3	\$0.5	\$21.8	\$8.07
Kentucky	\$16.9	\$5.0	\$6.1	\$0.2	\$2.8	\$0.5	\$31.5	\$7.68
Louisiana	\$17.7	\$14.5	\$6.4	\$0.2	\$2.9	\$0.9	\$42.6	\$9.47
Maine	\$10.8	—	\$3.9	\$0.1	\$1.8	—	\$16.6	\$12.77

Table 15: FY2005 State Allocations (in mil. \$, except per capita amounts)

State	SHSGP	UASI	LETTP	CCP	EMPG	MMRS	Total	Per Capita
Maryland	\$19.9	\$11.4	\$7.2	\$0.3	\$3.2	\$0.2	\$42.2	\$7.67
Mass.	\$21.9	\$28.1	\$8.0	\$0.2	\$3.6	\$0.7	\$62.5	\$9.77
Michigan	\$29.7	\$17.6	\$10.8	\$0.4	\$4.9	\$0.7	\$64.1	\$6.35
Minnesota	\$18.9	\$5.8	\$6.9	\$0.2	\$3.1	\$0.5	\$35.4	\$7.08
Mississippi	\$14.2	—	\$5.2	\$0.2	\$2.3	\$0.2	\$22.1	\$7.62
Missouri	\$20.3	\$15.3	\$7.4	\$0.3	\$3.3	\$0.5	\$47.1	\$8.26
Montana	\$9.9	—	\$3.6	\$0.1	\$1.6	—	\$15.2	\$16.89
NCR ^A	—	\$82.0	—	—	—	—	\$82.0	\$6.12 ^B
Nebraska	\$11.7	\$5.1	\$4.3	\$0.1	\$1.9	\$0.5	\$23.6	\$13.88
Nevada	\$12.8	\$8.5	\$4.7	\$0.2	\$2.1	\$0.2	\$28.5	\$12.95
New Hamp.	\$10.7	—	\$3.9	\$0.1	\$1.8	\$0.2	\$16.7	\$12.85
New Jersey	\$26.6	\$19.4	\$9.7	\$0.3	\$4.4	\$0.5	\$60.9	\$7.08
New Mexico	\$12.0	—	\$4.4	\$0.2	\$2.0	—	\$18.6	\$9.79
New York	\$49.4	\$221.1	\$18.0	\$0.6	\$8.1	\$1.1	\$298.3	\$15.54
N. Carolina	\$26.1	\$5.5	\$9.5	\$0.3	\$4.3	\$0.9	\$46.6	\$5.61
N. Dakota	\$9.3	—	\$3.4	\$0.1	\$1.5	—	\$14.3	\$23.83
Ohio	\$32.7	\$26.1	\$11.9	\$0.4	\$5.4	\$1.4	\$77.9	\$6.83
Oklahoma	\$15.6	\$5.6	\$5.7	\$0.2	\$2.5	\$0.2	\$29.8	\$8.51
Oregon	\$15.7	\$10.5	\$5.7	\$0.2	\$2.6	\$0.5	\$35.2	\$10.06
Pennsylvania	\$34.7	\$33.8	\$12.6	\$0.4	\$5.7	\$0.5	\$87.7	\$7.13
Rhode Island	\$10.3	—	\$3.7	\$0.1	\$1.7	\$0.2	\$16.0	\$14.55

Table 15: FY2005 State Allocations (in mil. \$, except per capita amounts)

State	SHSGP	UASI	LETTP	CCP	EMPG	MMRS	Total	Per Capita
S. Carolina	\$16.9	—	\$6.2	\$0.2	\$2.8	\$0.2	\$26.3	\$6.41
S. Dakota	\$9.6	—	\$3.5	\$0.1	\$1.6	—	\$14.8	\$18.50
Tennessee	\$20.6	—	\$7.5	\$0.3	\$3.4	\$0.9	\$32.7	\$5.64
Texas	\$55.7	\$49.8	\$20.3	\$0.7	\$9.0	\$3.0	\$138.5	\$6.35
Utah	\$13.0	—	\$4.7	\$0.2	\$2.1	\$0.2	\$20.2	\$8.78
Vermont	\$9.3	—	\$3.4	\$0.1	\$1.5	—	\$14.3	\$23.83
Virginia	\$23.9	—	\$8.7	\$0.3	\$3.9	\$1.4	\$38.2	\$5.23
Washington	\$21.2	\$12.0	\$7.7	\$0.3	\$3.5	\$0.7	\$45.4	\$7.44
W. Virginia	\$11.9	—	\$4.3	\$0.2	\$1.9	—	\$18.3	\$10.17
Wisconsin	\$19.8	\$6.3	\$7.2	\$0.3	\$3.2	\$0.5	\$37.3	\$6.91
Wyoming	\$9.0	—	\$3.3	\$0.1	\$1.5	—	\$13.9	\$27.80
Puerto Rico	\$16.3	—	\$5.9	\$0.2	\$2.7	—	\$25.1	\$6.44
Virgin Is.	\$2.9	—	\$1.1	\$0.04	\$0.6	—	\$4.6	\$46.00
A. Samoa	\$2.8	—	\$1.0	\$0.04	\$0.5	—	\$4.3	\$71.67
Guam	\$3.0	—	\$1.1	\$0.04	\$0.6	—	\$4.7	\$23.50
N. Ma. Is.	\$2.8	—	\$1.0	\$0.04	\$0.5	—	\$4.3	\$61.43
Total	\$1,062.0	\$854.8	\$386.4	\$13.26	\$173.9	\$28.5	\$2,518.9	

Source: U.S. Department of Homeland Security, Office for Domestic Preparedness, *Fiscal Year 2005 Homeland Security Grant Program: Program Guidelines and Application Kit* (Washington: Dec. 2004), and CRS calculations based on the 2002 population estimates from the U.S. Bureau of Census.

a. The National Capital Region (NCR) comprises the District of Columbia, Maryland counties of Montgomery and Prince Georges, Virginia counties of Arlington, Fairfax, Prince William, and Loudon; and the Virginia cities of Falls Church, Manassas, Manassas Park, Fairfax, and Alexandria.

b. This per capita amount is based on the 2002 population estimates for the District of Columbia, Maryland, and Virginia. The 2002 U.S. Census Bureau population estimates are available at [<http://www.census.gov/popest/estimates.php>], visited December 8, 2004.

Table 16: 2005 UASI Allocations (in mil. \$)

State	Urban Area	FY2005 UASI Allocation	State Total
Minnesota	Minneapolis	\$5.8	\$5.8
Missouri	Kansas City	\$8.2	\$15.3
	St. Louis	\$7.1	
Nebraska	Omaha	\$5.1	\$5.1
North Carolina	Charlotte	\$5.5	\$5.5
New Jersey	Jersey City	\$6.8	\$19.4
	Newark	\$12.6	
New York	Buffalo	\$7.2	\$221.1
	New York City	\$213.9	
Nevada	Las Vegas	\$8.5	\$8.5
Ohio	Cincinnati	\$5.9	\$26.1
	Cleveland	\$7.3	
	Columbus	\$7.6	
	Toledo	\$5.3	
Oklahoma	Oklahoma City	\$5.6	\$5.6
Oregon	Portland	\$10.5	\$10.5
Pennsylvania	Philadelphia	\$24.1	\$33.8
	Pittsburgh	\$9.7	
Texas	Arlington	\$5.1	\$49.8
	Dallas	\$14.1	
	Forth Worth	\$5.4	
	Houston	\$19.2	
	San Antonio	\$6.0	
Washington	Seattle	\$12.0	\$12.0
Wisconsin	Milwaukee	\$6.3	\$6.3
Total		\$854.8	\$854.8

Source: U.S. Department of Homeland Security, Office for Domestic Preparedness, *Fiscal Year 2005 Homeland Security Grant Program: Program Guidelines and Application Kit* (Washington: December 2004).

**Table 17: 2005 Metropolitan Medical System Allocations
(Each Metropolitan Medical System is allocated \$227,592)**

State	Metropolitan Medical System
Alabama	Birmingham, Huntsville, Mobile, and Montgomery
Alaska	Anchorage and Southeast Alaska
Arizona	Glendale, Mesa, Phoenix, and Tucson
Arkansas	Little Rock
California	Los Angeles, San Francisco, San Diego, San Jose, Long Beach, Oakland, Sacramento, Fresno, Santa Ana, Anaheim, Riverside, Glendale, Huntington Beach, Stockton, Bakersfield, Fremont, Modesto, and San Bernardino
Colorado	Aurora, Colorado Springs, and Denver
Connecticut	Hartford
Florida	Miami, Jacksonville, Tampa, St. Petersburg, Hialeah, Ft. Lauderdale, and Orlando
Georgia	Atlanta and Columbus
Hawaii	Honolulu
Illinois	Chicago
Indiana	Ft. Wayne and Indianapolis
Iowa	Des Moines
Kansas	Kansas City and Wichita
Kentucky	Lexington and Louisville
Louisiana	Baton Rouge, Jefferson Parish, New Orleans, and Shreveport
Maryland	Baltimore
Massachusetts	Boston, Springfield, Worcester
Michigan	Detroit, Grand Rapids, and Warran
Minnesota	Minneapolis and St. Paul
Mississippi	Jackson
Missouri	Kansas City and St. Louis
Nebraska	Lincoln and Omaha

**Table 17: 2005 Metropolitan Medical System Allocations
(Each Metropolitan Medical System is allocated \$227,592)**

State	Metropolitan Medical System
Nevada	Las Vegas
New Hampshire	Northern New England (also serves Maine and Vermont)
New Jersey	Jersey City and Newark
New York	Buffalo, New York City, Rochester, Syracuse, and Yonkers
North Carolina	Charlotte, Columbia, Greensboro, and Raleigh
Ohio	Akron, Cincinnati, Cleveland, Columbus, Dayton, and Toledo
Oklahoma	Oklahoma City and Tulsa
Oregon	Portland
Pennsylvania	Allegheny County and Philadelphia
Rhode Island	Providence
South Carolina	Columbia
Tennessee	Chattanooga, Knoxville, Memphis, and Nashville
Texas	Amarillo, Arlington, Austin, Corpus Christi, Dallas, El Paso, Fort Worth, Garland, Houston, Irving, Lubbock, San Antonio, and Southern Rio Grande
Utah	Salt Lake City
Virginia	Arlington County, Chesapeake, Newport News, Norfolk, Richmond, and Virginia Beach
Washington	Seattle, Spokane, and Tacoma
Wisconsin	Madison and Milwaukee

Source: U.S. Department of Homeland Security, Office for Domestic Preparedness, *Fiscal Year 2005 Homeland Security Grant Program: Program Guidelines and Application Kit* (Washington: Dec. 2004).