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Homeland Security as an Economic Development Strategy

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Homeland Security as an Economic Development Strategy

“The whole aspect of security will become embedded in our economy... Just as our society is now more environmentally conscious, security measures will, over time, become embedded in the fabric of our society... Security will be... part of the cost of doing business, and it will make some businesses more desirable than others in terms of investors and employees and insurance.”

-- Gordon England, US Department of Homeland Security Deputy Secretary

Introduction

Economic development can be described as the creation of jobs, community revitalization, and the improvement of the quality of life (Sitka Economic Development Association 2004). It influences growth and can enhance the quality of a community. Wilbur Thompson asserts that there are three primary economic goals in any place: (1) affluence, (2) equity, and (3) stability (Johnson 1989). Affluence describes a rising level of income, goods, and services available to its people. Equity describes the fair distribution of earned income and government services. Stability refers to the efficient use of resources. These are goals that should be pursued by any place to ensure the quality of life for the citizenry.

Universities also play a critical role in our society. They are the breeding grounds for an educated citizenry and workforce. Universities incubate new ideas and schools of thought, and are the birthplace of many new technologies. It is in secondary institutions that our scholars are trained to improve our nation and world. Therefore, universities have a direct relationship to economic development, as those trained in these institutions will eventually enter our labor force.

We are still living in the wake of the tragic events of September 11, 2001 (9/11). On this day, four planes hijacked by terrorists crashed into the two World Trade Center buildings in New

York, the Pentagon in Washington, D.C., and a field in Pennsylvania (Bullock 2005). In 102 minutes, both of the twin towers had collapsed leaving over 2,800 dead—343 of them firefighters and 60 uniformed law-enforcement officers (Safir 2003). Although historically this was not the first time America had experienced a terrorist attack, this particular act called into question – “How secure is the United States?” U.S. intelligence agencies admitted that the threat and power of terrorists groups such as Al Qaeda had been tremendously underestimated. Information obtained afterwards revealed an organized and concerted effort by groups, such as Osama Bin Laden and Al Qaeda, to attack the United States (Safir 2003). In all, 9/11 attacks caused approximately 3,030 deaths and 2,337 injuries (Bullock 2005). These tragic events created the impetus for the Homeland Security Act and how our nation will move forward in safeguarding itself.

However tragic and catastrophic the 9/11 attacks were, they did expose that our nation is vulnerable to terrorists. Similarly, Hurricane Katrina in 2005 demonstrated that the damage from natural disasters can be tantamount to that of terrorists. Nevertheless, there are lessons to be learned and actions that need to be taken. Robert Kennedy once stated: “Tragedy is a tool for the living to gain wisdom...” As we improve our nation through homeland security, many opportunities are being created on the state and local levels. New technologies and academic degree programs related to homeland security are emerging from our universities and the private sector. There is increased cooperation between public and private sector interests to protect vital infrastructure in our communities. Because of the attention homeland security is receiving, it has the potential to positively impact local economic development. This paper intends to explore the relationship between the homeland security market and local economic development.

Importance to the Planning Profession

Currently, planners are responsible for a number of elements to enhance the quality of life in our communities. They create comprehensive plans that envision the future of cities. They implement zoning regulations and programs designed to help us meet the goals of a master plan. Planners have to consider the social, economic, and political impacts of their decisions. Added to these dimensions is homeland security. Planners now have to consider, more than in the past, how a disaster whether man made or natural can impact the places we live. They now have to assess our vulnerabilities and plan for how we will respond in the case of a major occurrence such as a hurricane, terrorist bombing, or biological threat.

The Department of Homeland Security has broad set of objectives in place to achieve national security. To reach their goals, cooperation is needed at the state and local government level, as well as with the private sector. Through the Department of Homeland Security, states are able to fund projects that help municipalities reduce the negative impact that a manmade or natural disaster may have on their communities. Also vital in protecting our cities is private sector involvement. More than 60 percent of our most critical infrastructure--telephone poles, financial institutions, power systems and the like--is owned by the private sector. Therefore, a very coordinated effort between government and business will be necessary to safeguard our communities.

Economic development is a tool that local governments use to enhance the quality of life in our communities. Federal and state governments are often facilitators of economic development efforts. Traditionally, our federal government supported economic development through grants, such as the Community Development Block Grant (CDBG) and the Urban Development Action Grant (UDAG) program. CDBG funds were used for projects ranging from

housing to sewage treatment. UDAG funds could be used for site acquisition and clearance to facilitate local economic development (Levy 2003). State governments usually offer financial incentives to attract development. They employ tax credits, low-interest loans, infrastructure grants, and other tools to make their State more attractive for business.

What is becoming of great importance to our cities is the ability to attract and retain an educated workforce that will contribute to the local economy. In addition, a highly-skilled and diverse workforce is an asset to our cities in the globalizing economy. In the globalizing economy, geography and location are not the most important factors. In the past, states would market themselves to potential business as places that are close to raw materials, markets, or transportation routes. What is more important to businesses are communities that can attract and retain productive workers, have high quality universities, and have civic and cultural amenities (Partners for Livable Communities, 2000).

Homeland security may provide an opportunity for cities to achieve economic development goals and attract people seeking homeland security training. The Department of Homeland Security annually distributes funds to the States. Municipalities can then apply to their State to receive funding. Additionally, some federal funding is available specifically for urban areas, giving some cities another avenue to garner resources. Besides yearly funding from the government, the homeland security industry itself is presenting opportunities for cities to capitalize.

The formation of the Department of Homeland Security after the events on September 11, 2001 has resulted in a number of economic opportunities for municipalities. For example, the Demorest Police Department in Demorest, Georgia conducts criminal background checks for a number of employers nationally. Since 9/11, the service brings in \$175,000 a year for the police

department. This has been a financial windfall for their police department, whose budget had been \$300,000 annually to that point. The additional funds support equipment purchases in the small Georgia town (Atlanta Journal-Constitution 2006).

Other cities have used Homeland Security funding to aid themselves during financial hardships. In 2005, the city of Pittsburgh, Pennsylvania had to reduce its police and fire bureau workforce. The Pennsylvania Emergency Management Agency helped Pittsburgh secure a \$1.5 million federal Homeland Security grant that reimburses the city for emergency, safety and surveillance equipment and vehicles and expenses associated with first-responder training. Pennsylvania Governor Rendell supplemented the grant with a direct \$2 million contribution to the Pittsburgh police and fire bureau budgets (Pennsylvania Office of the Governor 2005). This funding will allow the city to hire workers and maintain staffing levels.

Educational opportunities have also arisen. Many colleges around the nation are now offering degree programs at the undergraduate and graduate levels in Homeland Security. Schools are now offering these programs in response to the growth of the homeland security market, in both the public and private sector. Virginia Commonwealth University of Richmond, Virginia graduated its first class in Homeland Security this year. Savannah State University in Georgia will begin its first classes for a Homeland Security degree program in 2007. Other institutions that have implemented Homeland Security degree programs include Ohio State University, Long Island University, Purdue University, Johns Hopkins University, and Monroe Community College. According to USA Today (2006), hundreds of community colleges, four-year degree programs, and postgraduate programs have begun offering degrees and certificates in emergency preparedness, counterterrorism, and security. Degree programs typically involve

several departments at these institutions including political science, psychology, criminal justice, engineering, and biotechnology.

These examples illustrate a few points of how the public sector has been able to capitalize on homeland security-related opportunities. In addition, the response from the academic community illustrates the growth the homeland security market has demonstrated since the September 11 attacks. Homeland security job functions can be found in local government offices, law firms, financial institutions, and a host of other private sector businesses. Because of the number of jobs, businesses, and other opportunities homeland security is creating, it would only seem logical that specialized training is necessary.

The private industry is also able to receive financial assistance from the Department of Homeland Security. Within the private sector lie more opportunities for achieving a homeland security economic development strategy, especially since they own the majority of the nation's critical infrastructure. Because of their need to secure these structures, the private sector will perhaps be the largest market for homeland security-related products and services.

The globalization of goods and services is becoming an aspect of every society. No longer are roads and natural resources prerequisite when attempting to lure business to an area. The products and services that people need are not always made in a factory. Businesses can hire consultants from all parts of the world. Some products can be built in several different places before it becomes a final product, ready for purchasing. The homeland security market is similar. Products and services range from security guards and computer software, to chemical detection equipment and packing materials. In addition, a single product can service a multitude of industries. For example, ICx MesoSystems created a biological threat sensor that can detect harmful airborne agents. The invention got the small company recognition in R&D Magazine,

and is being marketed to a number of businesses. According to MesoSystems, applications for the sensor include building management, subways and airports, mailrooms and mail distribution facilities, hospitals and other healthcare facilities, schools and educational institutions, military, and more (Facilities Management News 2006).

The homeland security industry is part of the globalizing economy. Our federal government is not focusing on one location in the event of another attack or natural disaster, rather they are assisting all states in protection and prevention. Granted that some places are more vulnerable to a terrorist attack or natural disaster than others, the threat for both is still present everywhere. With the belief that all places are vulnerable, all places should be prepared. Terrorist attacks can occur in any city, and natural disasters, like Hurricane Katrina, can be costly in terms of both lives and money. How to prevent acts of terrorism, or the best way to recover after a natural disaster is something that every State has to be prepared to do.

These are a few examples of how homeland security is now an added dimension to the planning community and how it may present financial opportunities. Local police departments conduct criminal background checks nationally, small companies are making innovations on products that serve an array of markets, and the academic community is providing students with homeland security knowledge and expertise. With so many parties interested in homeland security, the discussion from this point will describe the following:

- How and why the Department of Homeland Security was created and how its organization was historical,
- How federal homeland security dollars are distributed at the state and local level,
- How both the private and public sectors are involved, and
- How economic development can be encouraged by homeland security.

The Department of Homeland Security

Following the 9/11 attacks, President George W. Bush introduced former Governor Tom Ridge as the newly appointed Homeland Security adviser. Along with this new appointment, President Bush requested from Congress \$38 million to fund federal, state, and local expenditures regarding homeland security. In addition, “The Homeland Security Act of 2002” was sent to Congress, and was passed later that same year. Under this Act, the Department of Homeland Security was created to mobilize local, state, and federal resources for domestic security and focus on “the prevention, deterrence, preemption of, and defense against aggression targeted at U.S. territory, sovereignty, population, and infrastructure, as well as the management of consequences of such aggression and other domestic emergencies,” and limit the damage and recovery from attacks, should they occur (Carafano and Sauter 2005).

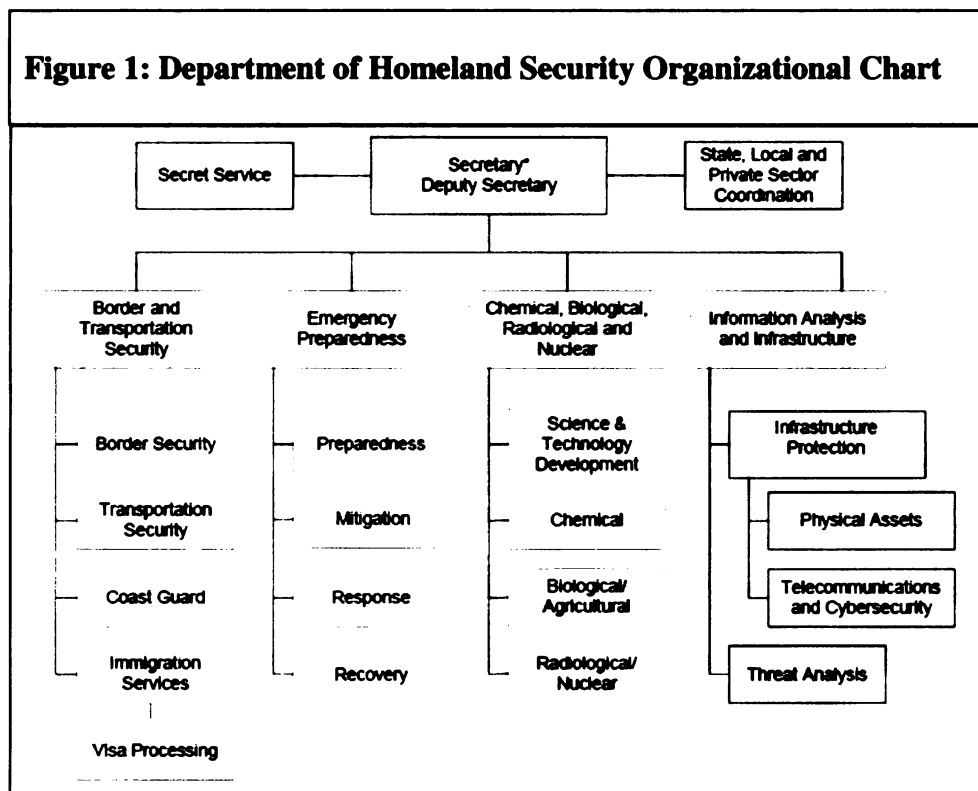
Homeland Security is an effort by the United States to defend America from terrorist and non-terrorist events. Terrorist efforts are defined as human-made catastrophes and non-terrorist events are occurrences such as natural disasters or chemical spills. The major goals of Homeland Security are: (1) preventing terrorism, (2) reducing vulnerabilities, and (3) minimizing damage and recovering from attacks. A terrorist act is “any premeditated, unlawful act dangerous to human life or public welfare that is intended to intimidate or coerce civilian populations or governments,” as defined by the National Strategy for Homeland Security.

One of the most profound elements of the Homeland Security Act is that it signifies the largest reorganization of the federal government in fifty years (Daaler 2002). Over twenty-two public entities were all organized into the Department of Homeland Security. This includes over 180,000 federal employees whose responsibilities range from immigration enforcement to science and technology research. Some of the departments that were folded into the Department

of Homeland Security include the Transportation Security Administration (TSA), the Federal Emergency Management Administration (FEMA), and the United States Coast Guard (Department of Homeland Security 2006). The agencies are organized into four areas: (1) Border and Transportation Security, (2) Emergency Preparedness and Response, (3) Chemical, Biological, Radiological, Nuclear Countermeasures (CBRN), and (4) Information Analysis and Infrastructure Protection.

The Border and Transportation Security Division works to keep terrorists and things that they could use to do harm from entering the country. Some departments organized into this division are the Coast Guard, Border Security, Transportation Security, and Immigration Services. The Emergency Preparedness and Response division is responsible for coordinating federal, state, and local government and private sector efforts to respond to terrorist attacks. Offices organized under this division include FEMA, Office of Domestic Preparedness, Domestic Support Preparedness Office, National Domestic Preparedness Office, Strategic National Stockpile, and the Nuclear Incident Response Team. The CBRN division is responsible for developing countermeasures against chemical, biological, radiological, or nuclear weapons threats. Some of its offices include the Plum Island Animal Disease Center, Environmental Measurements Laboratory, National Bio-Weapons Defense Analysis center, and Select Agent Registration Enforcement Program. Lastly, the Information Analysis and Infrastructure Program investigates terrorist activities in the United States and develops measures to prevent attacks. Some offices organized under this division are the National Infrastructure Protection Center, Computer Security Division, and the Federal Computer Incident Response Center.

The following diagram illustrates how some of these departments are organized under the Department of Homeland Security:



Source: http://www.dhs.gov/interweb/assetlibrary/DHS_OrgChart.pdf

While all of these offices are directly aligned under the federal government, it is crucial to recognize the importance of local governments and the private sector within this reorganization. Homeland Security grants are funded through the national government and then funneled down to state and local governments. The private sector also has federal funding sources available to them. Local governments can use grants to secure government-owned properties. While this accounts for a portion of land in municipalities, the private sector owns the majority of critical infrastructure in this country. Some critical infrastructure in this country includes telecommunications, power systems, transportation systems, and financial institutions.

The Critical Infrastructure Protection Executive Order, handed down from the Clinton Administration in 1996, was written to encourage cooperation between the public and private sector to ensure that these infrastructures were protected (Executive Order 13010 Critical Infrastructure Protection 1996). Recognizing this factor, the Department of Homeland Security has to have cooperation with local governments and private interests in order for their broad objectives to be reached.

Homeland Security Funding

Since 2003 the federal government, through the Department of Homeland Security, has provided over \$25 billion in funds to state and local governments (Reese 2004). When the Department of Homeland Security was originally formed, funding to states and local governments came in the form of grants. In response to the 9/11 attacks on America, the Department of Homeland Security wanted to enhance the powers of security and law enforcement agencies, and provide additional resources to local emergency responders (O'Hanlon 2005). The ability to provide resources to local emergency responders was a formidable task. Training police, fire fighters, and other first-responder units to react quickly to a catastrophic event was something that had to be planned for rather quickly. This was a difficult task being that public safety, for the most part, is the responsibility of local government units. It was not something that could be legislated overnight. However, the response by the national government was to provide Homeland Security grants that States could spend as they wanted.

In 2004, over \$3 billion in grants was appropriated to states. Each state would receive at least 0.75 percent of the appropriated funds (Reese 2004). With each state receiving a minimum of the budget, the remaining funds were dispersed based on population. What seemed to be a

fair, population-based formula, turned out to have odd results in terms how much funding each state actually received.

Table I: 2004-2006 Ten Largest & Smallest Awards By State

Homeland Security Grants by State: 2004, 2005, and 2006

Source: Department of Homeland Security

Total Spending	2004	2005	2006	Total Spending	
	\$3,050,433,000	\$2,475,567,000	\$1,650,305,959	\$7,176,305,959	
	2004	2005	2006	Total	Per Capita Average
10 Largest Awards					
California	\$349,894,000	\$282,622,000	\$231,950,605	\$864,466,605	\$ 8.00
Texas	195,671,000	138,570,000	89,880,352	424,121,352	6.23
New York	178,492,000	298,351,000	183,673,552	660,516,552	11.44
Florida	142,667,000	101,285,000	100,122,080	344,074,080	6.51
Illinois	114,925,000	102,593,000	90,405,480	307,923,480	8.05
Pennsylvania	109,866,000	87,671,000	49,335,020	246,872,020	6.63
Ohio	103,582,000	77,823,000	41,347,339	222,752,339	6.48
New Jersey	95,795,000	60,811,000	51,982,785	208,588,785	7.98
Michigan	76,981,000	64,075,000	46,898,876	187,954,876	6.19
District of Columbia	49,231,000	96,144,000	54,015,142	199,390,142	11.00
Total	\$1,417,104,000	\$1,309,945,000	\$939,611,231	\$3,666,660,231	
% of Total Spending	46.46%	52.91%	56.94%	51.09%	
	2004	2005	2006	Total	Per Capita Average
10 Smallest Awards					
Wyoming	\$18,809,000	\$13,934,000	\$7,673,562	\$40,416,562	\$ 26.52
North Dakota	19,421,000	14,376,000	10,788,443	44,585,443	23.38
Vermont	19,594,000	14,326,000	10,907,921	44,827,921	24.01
South Dakota	19,996,000	14,809,000	7,733,780	42,538,780	18.15
Delaware	20,206,000	14,984,000	10,296,370	45,486,370	18.10
Montana	20,689,000	15,318,000	7,929,901	43,936,901	15.72
Alaska	21,218,000	14,879,000	8,294,137	44,391,137	22.43
New Hampshire	24,110,000	16,776,000	7,886,573	48,772,573	12.08
Rhode Island	23,485,000	16,074,000	7,837,616	47,396,616	14.65
Maine	23,776,000	16,609,000	7,784,686	48,169,686	12.17
Total	\$211,304,000	\$152,085,000	\$87,132,989	\$450,521,989	
% of Total Spending	6.93%	6.14%	5.28%	6.28%	

Table 1 shows the top 10 and bottom 10 Department of Homeland Security funding allocations by state. The overall total spending has been in decline for the three-year period, however, between 2004 and 2005, funding did increase for the District of Columbia and

New York. The ten largest awards went to states that comprised more than half of the population for the United States. In addition, it appears that funding favors states with urbanized areas. Funding also favors large, border States such as California, Florida, and Texas.

Table 2: Population Estimates

Population Estimates for States in Table 1		
Source: U.S. Census Bureau		
	2004	2005-06
California	35,893,799	36,132,147
Texas	22,490,022	22,859,968
New York	19,227,088	19,254,630
Florida	17,397,161	17,789,864
Illinois	12,713,634	12,763,371
Pennsylvania	12,406,292	12,429,616
Ohio	11,459,011	11,464,042
New Jersey	8,698,879	8,717,925
Michigan	10,112,620	10,120,860
District of Columbia	553,523	550,521
Total	150,952,029	152,082,944
% of Population	51.40 %	51.30 %
	2004	2005-06
Wyoming	55,523	550,521
North Dakota	634,366	636,677
Vermont	621,394	623,050
South Dakota	770,883	775,933
Delaware	830,364	843,524
Montana	926,865	93,670
Alaska	655,435	663,661
New Hampshire	1,299,500	1,309,940
Rhode Island	1,080,632	1,076,189
Maine	1,317,253	1,321,505
Total	8,690,215	8,736,670
% of Population	2.96 %	2.95 %

Estimates from various agencies report that from the first year of homeland security funding, states such as Wyoming received financial priority over other states with seemingly more risk, such as New York or California (Mintz 2005). In addition, there were also reports of the same disparities found within states. For example, in Iowa, capital city Des Moines received \$100,000 less than Sioux County, a less-populated city. Critics of the Homeland Security grant

formula attribute these disproportions to poor planning and political considerations (Posner 2006).

Opponents felt as if the original formula may not have been evaluated well enough, coupled with those lobbying for it receiving higher consideration. Table I roughly illustrates this disproportion for each state during fiscal years 2004 through 2006. For this table, 2004 and 2005 calculations are based on population estimates and reported funding for that year. Both figures came from the U.S. Census. 2006 estimates are based on grant funding information provided by the U.S. Census and Department of Homeland Security. 2006 population estimates were unavailable at the time of research, therefore the 2005 estimates were used. The disproportion lies in the per capita area. While states such as California and New York received more total funding than other states, when that total is divided by the population, one can see that larger states received less per person than others. FY 2005 witnessed quite a change in funding, where the majority of states lost homeland security funding from the previous year. The decrease in funding is perhaps in response to the critics of the original funding formula, and the degree of frivolity in state in local spending.

One Maryland newspaper investigated how the cities in the State were using their grant funds to improve their homeland security. The newspaper reported that Kent County, population 19,582, used funding to purchase an \$8,800 hand-held chemical warfare detector. This item was purchased despite county officials stating that al-Qaeda was an unlikely threat. Additionally, at the Maryland Emergency Management Agency office, it was noted that \$17,234 was spent for large-animal rescue training (IRE Journal 2006).

FY 2006 witnessed the same decrease in funding. Total state funding has been cut by close to 54% from the year 2004 to 2006. There also seems to be the same per capita disparities.

But these disparities may be due to flaws in the funding formula. It does not necessarily mean that low-risk areas are receiving higher funding priority over high-risk areas, although it appears so in the per capita calculations. The total funding for the entire state, disregarding population as a factor, still favors larger states. Another possibility is that, after 2004, funding was allocated in specific categories. The following table illustrates the different categories created by the Department of Homeland Security:

Table 3: Homeland Security Grant Allocation Categories		
2004	2005	2006
Prevention & Deterrence	Law Enforcement Terrorism Prevention	Law Enforcement Terrorism Prevention
Citizen Corps	Citizen Corps	Citizen Corps
Urban Area Security Initiative (UASI)	Emergency Management Performance Program	Emergency Management Performance Program
UASI Transit Security	Metropolitan Medical Response System Program (MMRS)	Metropolitan Medical Response System Program
	Urban Area Security Initiative (UASI)	Urban Area Security Initiative (UASI)

Source: Department of Homeland Security
<http://www.dhs.gov>

By making these special grant programs under Homeland Security, not only do funds go to the states, but some target cities as well. In 2004, UASI grants to urban areas came to a total of \$671,017,498 (Department of Homeland Security 2006). UASI grants address the needs of high density urban areas by enhancing their capacity to prevent, protect against, respond to, and recover from acts of terrorism. These grants went 50 cities, some of which include New York, Chicago, Los Angeles, Houston, Denver, Oakland and Detroit. Similarly, Metropolitan Medical Response System (MMRS) grants catered to urban areas as well. MMRS grants were created in the aftermath of the 1995 and 1996 terrorist attacks in Oklahoma City and Tokyo, respectively.

These grants were designed to assist highly populated jurisdictions increase their response capabilities during the first hours crucial to lifesaving and population protection. Through fiscal year 2003, 124 cities were eligible for these grants.

State Homeland Security Strategies

The Homeland Security Advanced Research Project Agency (HSARPA) aspect of the Science and Technology (S&T) directorate helps to fund new technologies from universities and the private sector that relate to Homeland Security. Some government officials hope to capitalize on Homeland Security funding to promote economic development and job creation. Being capable of attracting and retaining businesses that create homeland security products and services may prove to be a strategy that municipalities pursue.

What is crucial when a municipality is attempting to attract a specific industry as a means for economic development, is determining the attributes that make their location attractive. For example, when manufacturing is a form of economic development, access to natural resources and transportation routes is important. Depending on the complexity of the manufacturing operation, a workforce with varying degrees of education is also pivotal. Most recently, high-technology economic development strategies have been employed throughout the nation. High technology can be described as industries that capture high skilled activities, which include Internet companies, biotech concerns, and computer and electronic companies (Markusen 2001). As opposed to manufacturing, high-tech businesses may not need as many natural resources as a traditional manufacturing operation. If the business is an Internet company, perhaps access to computers and related software may be adequate. What may make an area attractive to high-technology businesses is access to educational institutions, the ability to retain an educated workforce, as well as workforce retraining.

Currently, there is no definitive model utilizing homeland security as a tool for economic development. In essence, no state has created a campaign designed at promoting homeland security business development. However, some states are taking steps indirectly related to developing a strategy. Perhaps over time, a model can be placed effectively. The places that are attempting to use homeland security for economic development have identified what would make their place attractive for that business.

States such as Texas, California, and Florida have a natural advantage because they are located on our nation's borders. They have economic development programs focusing on defense and border/port protection and disaster management. Border protection may become very important in the years to come. Several companies are now competing for a \$2 billion contract with the Department of Homeland Security for a border protection plan and integration of U.S. Customs and Border Protection agency personnel, infrastructure, technology and rapid response capability (USA Today 2006). New York, Michigan, and Virginia have structured databases that list businesses in their States that are in the homeland security industry. Virginia and New York have the attractive attribute of being home to a number of large federal security-related businesses and programs.

From these two examples of homeland security related opportunities, it is apparent opportunities exist, whether natural or created. There is the advantage of location if a state has entry ports or is located on our nation's border. The Department of Homeland Security wants to increase first responder presence on our ports and borders, and may have to work heavily with local and state governments to accomplish that goal. From this, there may be an opportunity for job creation, as a higher presence equates to more people being needed in jobs related to border/port protection.

New York, Virginia, and Michigan have developed websites that allow browsers to find businesses selling homeland security products and services. By doing so, they are providing both the public and private sector with a potential “inventory” of products and services that businesses in their state have available. For example, the Michigan website allows someone to find businesses based on certain parameters such as location and whether the business is minority-owned or woman-owned. From there, a link is provided giving a description of their product and, if available, a link to their website and company information (Michigan Economic Development Council 2006).

Homeland Security Market

Currently, the homeland security industry is one of the fastest growing industries in the nation. Experts have projected that the homeland security market will continue to grow in years to come. Governments and businesses anticipate that \$59 billion will be spent this year to fight terrorists. This \$59 billion represents a sixfold increase in spending of this type since the year 2000. Professionals at Homeland Security Research predict that the market for security-related goods and services will increase to \$178 billion in 2015. They also conclude that in the event of another attack in the United States, Europe, or Japan, the global market would increase to \$730 billion in 2015. Pending the validity of these forecasts, it would seem imperative that more places invest resources into the industry.

Since 2003, many businesses have been able to capitalize on the homeland security business. An Albuquerque, New Mexico business called ICx MesoSystems sold 600 of their products to federal, state, and local agencies since the 9/11 attacks. In the year 2000, they had only sold 10. This sudden windfall equated to \$7 million in earnings, more than triple of what they were in 2000. ICx MesoSystems is a small company, employing only 35 people (USA

Today 2006). Additionally, since 2003, the product market has expanded significantly to encompass a wide range of products and services. Initially, the primary focus of the homeland security industry was airport security. Presently, the industry includes products and services ranging from chemical, biological, and radiological detection to human resource experts, consultants, and boat makers (Riehl 2003). United States companies are also benefiting the most globally from homeland security products and services. 2006 projections predict that the U.S. market will generate \$29.1 billion in revenue. Seventy percent of this income will come from federal, state, and local government contracts (USA Today 2006).

Homeland Security Business Opportunities

The private sector owns the vast majority of our critical infrastructure, and it is in the private sector that many new technologies are created and commercialized. The Department of Homeland Security has created several programs with the Secretary for the Private Sector to encourage business involvement, whether large or small. The Private Sector Office has the task of working directly with businesses and trade associations to foster dialogue between the private sector and DHS. DHS also has support from the Technical Support Working Group (TSWG) (Riehl 2003). The function of the TSWG is to rapidly develop technologies and equipment to meet the needs of combating the terrorism community.

In 2003, the Congressional Research Service (CRS) published a report entitled “Homeland Security: Federal Assistance Funding and Business Opportunities.” This report outlines opportunities for businesses, states and local governments, research organizations, and other entities interested doing business with the Department of Homeland Security (Riehl 2003). It provides information on the type of products and services that DHS is looking for, and the types of funding available.

The Department of Homeland Security uses contracts, grants, loans, and other types of awards to attract businesses that can produce certain types of technologies and services. Some of the types of products and services that it requests are listed below.

- Detection equipment for explosive, radioactive, biological, and chemical agents
- Surveillance, computer, and telecommunications equipment
- Private security guards
- Management of immigration detention centers
- Port, border, railroad, and aviation security

Large and small businesses may compete for monetary awards from DHS; however, the Congressional Research Service admits that most contracts are awarded to large businesses. This is because larger business may be better able to fulfill the contractual obligations than a smaller business. However, subcontracting is a tool often available in contractual agreements, and small businesses may find better opportunities to receive funding there.

On the *Federal Business Opportunities* website <http://www.febizopps.gov>, notice of business opportunities and contract awards are listed. According to a statement from Elaine Duke, chief procurement officer for DHS, large companies have to sub-contract some portion of their work to small businesses. A small business could easily access this information and then solicit their services to a primary contractor. On the following page is a table of other ways to access business opportunities and resources with the Department of Homeland Security.

Table 2: Department of Homeland Security Business Resources

<u>Agency</u>	<u>Business Information</u>
Department of Homeland Security http://www.dhs.gov	Provides links to “Business” information, DHS acquisition offices, federal policies and regulations.
Federal Business Opportunities, GSA http://www.fedbizopps.gov	Serves as the single point of entry for federal procurement opportunities over \$25,000.
Office of Small and Disadvantaged Business Utilization (OSDBU)	Promotes the use of small and disadvantaged businesses in compliance with federal laws and regulations.
Simplified Acquisition Contacts	Provides information on procurements up to \$100,000.
Pro-Net (Procurement Marketing and Access Network), Small Business Administration http://www.pro-net.sba.gov	Provides information on procurement opportunities matching individual company profiles that are registered.

Source: Homeland Security: Federal Assistance Funding and Business Opportunities, Congressional Research Service

Additionally, the Small Business Administration has established several tools to assist small businesses wanting to enter the homeland security industry. The Department of Homeland Security held a conference which included sessions on how small businesses can market their products. Through a number of websites, such as the ones listed in Table 2, businesses can find out who is looking for their product, how to contact them, and if there are funding opportunities available. DHS also has a section on their website labeled “Open for Business” which guides searches to individual state websites that cater to business needs.

Although federal funding has declined over the past 3 years, private and public spending on homeland security related products has increased. In 2003, federal, state, and local government and private sector spending on homeland security was estimated at \$100 billion (Washington and Miller 2004). Other groups have made projections indicating that federal

spending on homeland security will continue to increase in the next ten years (Shaheen, Gordon, and Beckner 2004).

The state of Illinois has emerged as an interested party in employing opportunities in homeland security as a strategy to further their economic development goals. Since 2004, they have commissioned reports from outside sources that investigate the market for homeland security funding for private business development. Following is a discussion of their findings.

Illinois Homeland Security Economic Development

The state of Illinois has already recognized the economic development potential of homeland security funding. Under a contract with the Illinois Office of the Governor, the Research and Development (RAND) Corporation conducted a scoping study regarding the potential of homeland security as an economic development tool (RAND Corporation 2003). The RAND Corporation is a nonprofit institution that helps improve policy and decision-making through research and analysis. The Infrastructure, Safety, and Environment (ISE) division of RAND conducted this study. Their mission is to improve the development, operation, use, and protection of built and natural assets. The work was conducted between December 14, 2004 and January 21, 2005, and then published in February 2005.

The state of Illinois is exploring and implementing programs seeking to attract industries that invest in products and services related to homeland security. Illinois Governor Rod Blagojevich seeks to promote economic development and job creation in his state by capitalizing on the significant growth in spending and investment in homeland security in the United States (RAND 2005). The following information describes the process by which Illinois officials investigated the feasibility of creating a homeland security economic development strategy.

The study conducted utilized both qualitative and quantitative strategies. The first step was surveying the Illinois business environment to identify industries related to homeland security. This was accomplished using the North American Industrial Classification System (NAICS) and other industry data sources. Next, a brief case study analysis was conducted surveying various states that have homeland security agendas. The study also evaluated the research and development environment of Illinois. Lastly, introducing a framework for a homeland security economic development strategy concluded the data.

Using the North American Industrial Classification System (NAICS) data, the Illinois officials have identified industries in their state that may have homeland security applications. However, this data has limitations because there is no specific industry that lists its primary function as homeland security. The Department of Homeland Security publishes an Authorized Equipment List that specifies the type of equipment purchasable by governments using Homeland Security funds. Matching the NAICS data with the Authorized Equipment List may give a more accurate conclusion when they are analyzed concurrently. In addition, by applying the NAICS codes nationally, Illinois officials also drew conclusions about the homeland security market in the United States.

The next step was to survey the national climate for homeland security economic development. The goal of this process was to determine what, if any, economic development strategies exist targeted at homeland security. Illinois examined 17 States including Texas, California, New York, Florida, Michigan, and Pennsylvania. The result of this survey is that there is no economic development strategy geared specifically towards homeland security in the country. This leaves room for any ambitious State to explore the topic and perhaps set a precedent for creating a homeland security economic development strategy. Researchers were

able to find business development models used by the private sector. Perhaps some level of replication can be drafted after these private sector models.

After examining the national market for homeland security, Illinois officials focused their attention on their state. Using the Research and Development in the United States (RaDiUS) database, researchers were able to determine the number of research and development awards given out in the state of Illinois. This search yielded 6287 institutions that received government funding for projects totaling \$1.3 billion. These findings were further narrowed by only examining projects that were most relevant to the homeland security industry. This narrowed search yielded 248 Illinois institutions receiving a total of \$69 million for projects related to homeland security. The largest contributing agencies included the Department of Defense (83), the National Science Foundation (69), the Department of Transportation (23), and the Department of Health and Human Services (22). From this information, researchers concluded that there are opportunities for Illinois to emerge in the homeland security market. By focusing on industries currently using homeland security funding, the state may develop a plan to facilitate more funding opportunities.

The final section provides a framework for the state of Illinois to move forward with its homeland security economic development initiative. The recommendations directly align themselves with traditional economic development strategies such as tax credits and incentives to attract and retain businesses, utilizing existing infrastructure, implementing university programs designed to provide training related to homeland security, and creating offices to coordinate homeland security economic development efforts. The authors of the report suggest that the state of Illinois can begin to explore the types of businesses they want to target and then tailor current programs to facilitate development. Tax credits and incentives can be marketed directly

to homeland security industries in the state. Illinois universities and other secondary institutions can implement curricula that are focused on homeland security. Colleges and universities can be used to train a new workforce or retrain employees for companies looking to transition their services and products towards homeland security. Lastly, the state of Illinois can create an office that can further funding for research opportunities as well as develop a marketing strategy for homeland security.

Since this scoping study was completed, the state of Illinois has further pursued the recommendations written by the RAND Corporation. In February 2005, the Illinois Department of Commerce and Economic Opportunity (DCEO) established the Bureau of Homeland Security Market Development. Since its inception, the Bureau has created employee-training services to retrain the workforce, and networked with state business leaders via conferences about opportunities for the state in homeland security.

In August 2005, Governor Blagojevich announced the launch of the Homeland Security Procurement Technical Assistance Center (PTAC), which will help businesses compete for public sector homeland security contracts (Illinois Office of the Governor 2005). Currently, Illinois has twelve PTAC offices whose function is to help businesses in garnering federal and public contract opportunities. The College of DuPage will be the center for the new Homeland Security PTAC program. The office will provide business opportunity listings, relevant training, conferences, and networking opportunities with the Illinois Department of Commerce and Economic Opportunity (DCEO). The College of DuPage is centrally located in Glen Ellyn, close to cities such as Rockford, Aurora, and Springfield.

Governor Rod Blagojevich views establishing these new offices as a method of strengthening and promoting Illinois economic development. They are a part of larger, regional

economic development strategy already in place for the state. If Illinois is successful at implementing homeland security as an economic development tool, it may set a precedent for other states to follow. In January 2005, Governor Blagojevich provided \$325,000 in grants for two Illinois homeland security companies. These funds will help create 40 new jobs at the companies (Illinois Department of Commerce and Economic Opportunity 2006).

New York Homeland Security Economic Development

The 9/11 attacks occurred first in the state of New York at the Twin Towers. After these buildings were devastated, many large businesses contemplated decentralizing their operations because of the apparent threat to their livelihood. Large scale decentralization results in a number of jobs leaving the city and many unemployed citizens. This was a critical time for New York to review their economic development strategies in search of methods to retain and attract businesses (Fuchs 2006).

To catalyze these tasks, the Department of Homeland Security provided New York with \$200 million. In the 2003 fiscal year, a portion of \$9.3 billion was given to New York to assist unemployed workers to get job training, employment assistance, and health care (The White House 2002).

The state of New York has begun to implement economic development programs related to homeland security. The Empire State Development (ESD) Homeland Security (HS) Initiative was designed to connect New York businesses to security-related local, state, and national business opportunities. ESD provides technical assistance using its businesses, secondary institutions, and federal and local governments to help the private sector secure grants and awards for homeland security research and development (New York Homeland Security

Initiative 2004). The objectives of the ESD are as follows:

- Assisting New York State firms with information to pursue homeland security contracts for goods and services applications.
- Serving as a clearinghouse for NYS firms on HS opportunities.
- Working to attract R&D funds and investment for CATs, Centers of Excellence and private efforts.
- Seeking designation of federal resource facilities in NYS.

New York, similar to Illinois, is poised to capitalize on the homeland security market using its existing infrastructure. In a presentation to the NYS Economic Development Council, Fred Di Maggio and Jim Held (2004) outlined several assets in the State of New York. First, New York employs approximately 75,000 people in homeland security-related companies. In comparison to other leading states such as California and Texas, New York ranks highly in homeland security industries. These industries include Data Mining, Identity Management, Robotics, and Homeland Security Consulting. Second, several universities are affiliated with Homeland Security Centers of Excellence. These universities include Buffalo State University, Syracuse, Albany, and Rochester (New York Office of the Governor 2003).

In March 2003, New York Governor George E. Pataki, announced a \$300,000 matching funds grant to the State University of New York College of Environmental Science and Forestry (SUNY ESF) to develop technologies that protect public water systems. The grant comes directly from New York's homeland security budget and is being matched with other funding in the amount of \$725,000 (New York Office of the Governor 2003). SUNY ESF will partner with Illumination Technologies, a private sector company, to develop an optical biochip able to detect biological and chemical agents introduced into public water supply. This research will not only

develop new homeland security technologies, in addition, it will help New York establish itself in the homeland security market. This project could generate 450 jobs in the state of New York.

Colleges and Universities

In the introduction, there was brief mention of the role colleges and universities play in the economic development of a city. Colleges offer many degree programs that they feel are attractive to their students. Recently, several colleges and universities nationwide have created homeland security degree programs in response to growth of the industry. Steven David, chair of the graduate certificate program in homeland security at Johns Hopkins University, says that homeland security will be the biggest government employer in the coming decade. Mel Bernstein, director university programs for the Department of Homeland Security, stated that some companies are adding homeland security initiatives to their organizations and seek to employ those educated in the field (USA Today 2006). With homeland security having continued growth over the past few years, a need has arisen for a populous educated in specific areas of this industry.

Several universities have instituted homeland security degree and certificate programs. Most of these programs operate under more traditional majors, such as political science, sociology, and computer science. Students can major in a traditional field and have a concentration in homeland security. Or, in certificate programs, students can study issues such as crisis and disaster management, telecommunications and national security. By offering homeland security certifications under other degree programs, universities do not have to face the hardship of creating completely new departments or building new facilities to house their programs. They are merely reorganizing and mobilizing their existing resources. For example, Johns Hopkins University uses faculty from the school of medicine, applied sciences, and public

health to manage its homeland security certificate programs (Johns Hopkins Office of CEPAR 2005). Some universities offering this curriculum include George Washington University in Washington, D.C., Northeastern University in Boston, Ohio State University, and Savannah State University.

Community colleges also provide degree programs in homeland security, especially those that train first responder units. First responder units include police officers, emergency medical technicians, and firefighters. The Homeland Security Management Institute at Monroe Community College in Rochester, New York has several labs including a crime scene simulator, forensics, and aircraft simulator.

Implications

Secondary institutions are finding ways to attract students by offering homeland security classes and degree programs. States and localities are also garnering funds to accomplish their goals in relation to homeland security. States and universities are even working together to procure homeland security funds, and are both using them for academic, public, and private research. The Department of Homeland Security encourages businesses, both large and small, to provide homeland security related products and services.

The research conducted by RAND for the Illinois Homeland Security Initiative utilized data regarding the state's industries and demographics to produce recommendations. RAND encouraged Illinois to partner with its universities, and public and private sector to initiate its homeland security economic development strategy. In addition, although the Department of Homeland Security's Centers of Excellence are centrally located at one of six universities, each participating institution has partnered with other universities to accomplish their missions (Oak Ridge Associated Universities 2005).

The way homeland security is being encouraged is leading to it becoming not only an academic discipline and profession, but a way to shape the future of our communities. Although our federal government is the greatest shaper of the field, through its grants and contracts, the private sector also recognizes the vitality of the industry. Additionally, while federal funding has declined over the past three years, public and private spending has continued to increase. Governments and businesses alike need products and services related to homeland security. Many businesses compete for grants and create homeland security departments within their companies. As the majority of our critical infrastructure is in the hands of the private sector, the ability to enhance their protection and reduce vulnerabilities is very important.

Funding is being pumped into universities through the S&T Directorate which funds the Centers of Excellence, the Scholars and Fellows program, and HSARPA. This funding may guide academia in the coming years, making homeland security not only an economic development strategy, but an academic discipline as well. Future engineers, scientists, doctors, policy makers, and other professionals will be trained in our colleges and universities and may possibly study some aspect of homeland security. Undoubtedly, all these professions are related to the field. The Scholars and Fellows program, also funded by the Department of Homeland Security, has a tremendous role in shaping academia because of the new opportunities it exposes to students (Tighe 2005). Recipients of these scholarships come from a number of fields ranging from engineering to psychology, and they all help accomplish the homeland security agenda. Scholarship awardees have their tuition paid for, are given a summer internship with DHS, and receive a monthly stipend.

The new technologies that are being produced by universities and the private sector, if successful, present opportunities for states to attract them to the communities. For example, a

single research project being conducted by the State University of New York Environmental Science and Forestry Department (SUNY ESF) can possibly create over 400 jobs for the state of New York. The company partnering with SUNY ESF could possibly commercialize a new technology and become a model industry in homeland security. SUNY ESF may be able to bring attention to their university from these efforts, which could mean more homeland security funding, investment, and new students.

Conclusion

Many topics were discussed throughout this paper. It began with an account of how Department of Homeland Security was created, and then led into a discussion of its relation to economic development. Hopefully, a link was established between the two. If the public and private sector continue to invest into the products and services related to homeland security, it may be a viable way for communities to shape their economies. What seems to be critical in determining what kind of economic development strategy is viable in a community is taking inventory of what it has to offer. In essence, will a place be able to attract the resources necessary to utilize the strategy, or are the resources already present. Officials trying to create homeland security development programs in Illinois and New York have done just that. They assessed what their states had to offer in the way of education and business. Then they assessed the market in their regions. Lastly, they researched how to garner resources, and fostered partnerships with other interested parties. Those included universities, local and state governments, and private sector interests. This may be a starting point for others when determining if the homeland security market is a ripe industry in their community.

In closing, many opportunities exist in the field of homeland security. With continued funding by government and the private sector, it may prove to be a strategy usable by any

community with the best resources. Being that homeland security is not so narrowly focused that it only encompasses a few industries is also important. This means that municipalities and universities do not have to focus on one particularly type of industry, they can encourage many others. Homeland security related industries include pharmaceuticals, consulting services, biotechnology, public health, biotechnology, and a host of other fields. Both universities and states can find their niche in this homeland security market.

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