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Report to Dr. William Jenkins, GAO,
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NATIONAL PREPAREDNESS:

Federal, State, and Local Definitions, Threats, and Goals

2008-2009 MPSA Capstone

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Introduction

In December 2003, the President issued *Homeland Security Presidential Directive-8* (HSPD-8) that established policies to strengthen the preparedness of the United States to prevent and respond to threatened or actual domestic terrorist attacks, major disasters, and other emergencies. The Secretary of the Department of Homeland Security (DHS), working with other federal, state, and local officials, was required to develop a national domestic all-hazards preparedness goal, establish mechanisms for improved delivery of federal preparedness assistance to state and local governments, and outline actions to strengthen preparedness capabilities of federal, state, and local entities.¹

Considerable policy and doctrine has been issued or is under development regarding preparedness goals. In September 2007, the Department of Homeland Security finalized the national preparedness goal and its related preparedness tools with the issuance of the *National Preparedness Guidelines*. The *Guidelines* include (1) the national preparedness vision that is a concise statement of the national core preparedness goal, (2) the 15 national planning scenarios that present high-consequence threat scenarios, (3) the universal task list of key tasks supporting preparedness capabilities, and (4) the target capabilities list that describes specific capabilities that communities, the private sector, and all government levels should collectively possess to respond effectively to disasters. The *Guidelines* also describe a “National Preparedness System” consisting of (1) policy and doctrine such as the *National Incident Management System* and *National Response Framework*, (2) planning and resource allocation mechanisms, (3) training, exercises, and sharing effective practices, and (4) assessment and the reporting of progress.² In January 2008, an annex to HSPD-8 formally required DHS to establish a standard and comprehensive approach to national planning to enhance national preparedness.³

Congress, in appropriations legislation (P.L. 108-334) that followed the issuance of HSPD-8, established a statutory requirement for DHS officials to develop preparedness goals.⁴ Moreover, budgetary resources targeted at national preparedness have also been significant, with tens, possibly hundreds, of billions of dollars appropriated for federal, state, and local preparedness expenditures since 2003.⁵ In order to qualify for federal preparedness assistance, state and local government preparedness efforts must comply with the national preparedness goal.⁶ Much of the current preparedness mission stems from post-Hurricane Katrina legislation. *The Post Katrina Emergency Management Reform Act of 2006* (P.L. 109-295) assigned FEMA the responsibility

¹ See U.S. President. 2003. *Homeland Security Presidential Directive-8*.

² See to U.S. Department of Homeland Security. 2007. *National Preparedness Guidelines*.

³ See U.S. President. 2008. *Homeland Security Presidential Directive no. 8 (annex)*.

⁴ See *Department of Homeland Security Appropriations Act* (P.L. 108-334). 2005. 108th Congress, 2nd session. Title III, part 4.

⁵ Refer to the Department of Homeland Security’s website pertaining to Budget and Finance Documents. Specifically, consult Budget Fact Sheets for years FY 2003 – FY 2009. <http://www.dhs.gov/xabout/budget>.

⁶ See U.S. President. 2003. *Homeland Security Presidential Directive-8*, section 9.

for developing a National Preparedness System.⁷ It further required any state receiving federal preparedness assistance to submit a State Preparedness Report to DHS, including material such as state compliance with the National Preparedness System and *National Response Framework*, an assessment of current capability levels, a description of target capability levels, and a listing of which capabilities remain unmet and the resources needed to meet stated preparedness priorities.⁸

Traditionally, “preparedness” is more of an emergency management term but post September 11, 2001 it has become an integral part of the context describing homeland security.⁹ Federal guidelines and requirements concerning national preparedness are immense, but at their core they are basically working towards establishing and directing a preparedness framework intended to ensure the outcome of readying for the full range of preparedness; i.e. preventing, responding to and recovering from major events likely to stem from any hazard capable of significantly endangering one or all of the following: the population, property, infrastructure, the environment, the economy, continuity of government functions and national morale.¹⁰ However, despite billions in allocated resources and thousands of pages dedicated to discussing “preparedness” the term continues to elicit confusion. Little research has been done to assess how preparedness has been strategically and operationally defined and applied across and down the levels of government. For example, it is not known to what extent state and local preparedness priorities—strategic goals and objectives—align with federal guidelines. Critical success factors or elements for effective preparedness implementation, including the importance of contextual factors such as organizational structure and governance or budgetary constraints, have not been clearly identified or prioritized. To further knowledge of preparedness progress, we were asked by GAO to respond to the following questions:

1. Is preparedness being consistently defined across the various levels of government?
2. What are the current national, state, and selected local preparedness goals?
3. Of the current goals of the selected local governments, what is the status of their implementation and what are the preparedness implications?
4. What are the key implementing/contextual factors for achieving stated preparedness goals, such as risk tolerances, organizational structure and governance, partnerships, budget issues, political situation, and federal resourcing?

⁷ The National Preparedness System is to be comprised of: target capabilities and preparedness priorities, equipment and training standards, training and exercises, comprehensive assessment system, remedial action management program, federal response capability inventory, reporting requirements and federal preparedness. For more on this see: U.S. Department of Homeland Security. 2009. *The Federal Preparedness Report*.

⁸ See *Post Katrina Emergency Management Reform Act* (P.L. 109-295). 2006. section 652, part c.

⁹ See John F. Morton. 2008. *State/Local Issue Team Solution Set Structure Working Group Project on National Security Reform*. Project On National Security Reform: State/Local Issue Team. p. 12.

¹⁰ See U.S. President. 2003. *Homeland Security Presidential Directive-8*. See also definitions contained within U.S. President. 2007. *Homeland Security Presidential Directive-20* and the *Robert T. Stafford Disaster Relief and Emergency Assistance Act* (P.L. 93-288), as amended, (42 U.S.C. 5121-5207). 2007. Title 1, section 102.

This initial report covers questions 1 and 2. It provides basic overview information on national preparedness definitions at the federal, state, and local levels. Specifically, it provides observations on how each level of government defines preparedness. This report also captures threats (i.e. preparedness drivers) and preparedness goals at the federal, state, and local level. It concludes with observations on preparedness from the literature, major think tanks, and reports from the Government Accountability Office and Congressional Research Service. The source database for federal, state, and local preparedness definition(s) and goals information can be found in Appendix A. Question 3 will not be addressed in any future research. The final deliverable for this project will respond to question 4 and identify key implementing and potential factors for achieving stated preparedness goals. This will be accomplished through a case study on the state of Texas, supported by an expanded literature search regarding implementing and contextual factors.

Scope and Methodology

To answer questions 1 and 2, we gathered and analyzed (1) Executive Office of the President and DHS homeland security preparedness publications since September 2001; (2) federal preparedness legislation since September 2001; (3) state and tribal homeland security preparedness publications from all 50 states (documents reviewed included homeland security strategies, hazard mitigation plans and emergency operations plans) and the twelve Indian tribes receiving State Homeland Security Program-Tribal Funding in FY 2008; (4) preparedness documents and related information from the seven Tier 1 Metropolitan Statistical Areas (MSAs) defined under the Urban Areas Security Initiative (UASI) program and the top five Metropolitan Statistical Areas receiving the largest funding allocations of Tier 2 under the UASI program; (5) homeland security and public administration journals including *Homeland Security Affairs*, *Journal of Homeland Security and Emergency Management*, *Public Administration Review*, *Security Affairs*, and *Journal of Homeland Security*; (6) preparedness observations from major think tanks studying homeland security; and (7) insights from products produced by the Congressional Research Service and the Government Accountability Office since September 2001. Despite extensive online searches, including access to DHS material on state plans and calls to state, local and tribal officials, we were unable to obtain any information for the twelve Indian tribes and the states of Delaware, New York, New Jersey and North Dakota. In other cases, publicly available information was minimal or we collected information on a separate entity when the categorization might be a larger geographic region. For example, a Tier 1 urban area was the Bay Area; we collected information from the San Francisco County, CA.

In answering questions 1 and 2 we also performed a limited number of analytical comparisons across the state and local units of analysis, contrasting state related preparedness definitions, and

threats and goals data by population and by border categorization.¹¹ For the state population comparison, states with a population of less than two million were considered small, states with a population between two and six million were considered medium, and states with a population greater than six million were considered large.¹² Comparisons of preparedness definitions, and threats and goals across the twelve reviewed localities were based upon the analytical categories of population and Tier classification.

A summary of findings is provided at the conclusion of this document.

Preparedness Definition

The first research question asked if preparedness is being consistently defined across the various levels of government.

Federal Level

In order to provide national direction regarding preparedness efforts, the federal government has issued numerous documents on the matter since 2001 in the forms of legislation, Department of Homeland Security (DHS) requirements, Homeland Security Council (HSC) strategies, and related plans. Such federal guidance has culminated as the National Preparedness System, addressing issues of capability assessment and planning (*Target Capabilities List*), task identification (*Universal Task List*), communications (*National Preparedness Guidelines and National Incident Management System*), reporting requirements (*Post Katrina Legislation and National Response Framework*), roles and responsibilities (*National Response Framework*) and training and exercises (*National Preparedness Guidelines and National Exercise Program*).¹³

The guiding doctrine for preparedness has been largely directed through the issuance of Homeland Security Presidential Directives (HSPDs); a listing of all issued HSPDs from 2001 to summer 2008 can be found in Appendix B. Appendix C provides a simple relationship map of the key national preparedness documents. HSPD-8 remains the overall definer of basic preparedness, consistently referenced in other federal policy and doctrine intended for a national audience. The directive defines preparedness as “the existence of plans, procedures, policies, training, and equipment necessary at the federal, state, and local level to maximize the ability to prevent, respond to, and recover from major events.”¹⁴ However, other major federal preparedness planning doctrines do not necessarily use this definition explicitly but will provide an expansion of the definition to include more functions or redefine a “major event.”

¹¹ International gateways were defined as states that either have a land border with another country or have a coastline that touches an international waterway. For this definition, international waterways include the Atlantic Ocean, the Pacific Ocean, the Gulf of Mexico, and the Great Lakes.

¹² Population size categories were determined using 2008 U.S. Census data with the intent of maintaining a close to even distribution of states considered small, medium and large.

¹³ This is not an exhaustive list of federal preparedness doctrine. For a visual representation of key guiding national preparedness documents see Appendix C.

¹⁴ See U.S. President. 2003. *Homeland Security Presidential Directive no. 8*, section 3, part h.

For example, the *National Preparedness Guidelines* and the March 2004 *National Incident Management System* (NIMS) defines preparedness as “the range of deliberate, critical tasks and activities necessary to build, sustain, and improve the operational capability to prevent, protect against, respond to, and recover from domestic incidents. Preparedness is a continuous process. Preparedness involves efforts at all levels of government and coordination among government, private sector, and nongovernmental organizations to identify threats, determine vulnerabilities, and identify required resources. Within the NIMS, preparedness is operationally focused on establishing guidelines, protocols, and standards for planning, training and exercises, personnel qualification and certification, equipment certification, and publication management.”¹⁵ The *National Response Framework* refers to the definition in the *National Preparedness Guidelines* and the National Exercise Program (NEP). The NEP is a four-tiered approach that is based on policy priorities and strategic direction requiring goals, themes and interagency participation.¹⁶ The tiered approach “allows for departments and agencies to align other exercises, training activities, and preparatory reviews of policies, plans and procedures.”¹⁷

The federal doctrine defining preparedness is, understandably, very broad. The underlying theme is a national focus on the full range of preparedness, which is to prevent, respond to, and recover from major events. Essentially, this understanding of “preparedness” encompassing everything from prevention to recovery is one drawn from the theory of risk management.¹⁸ Recognizing the utility of a risk based perspective, the federal government is working to establish and guide a national preparedness effort—drawing on federal, state, local levels, and other organizations—and major events that are not limited to terrorist attacks. The number and vagueness of federal preparedness definitions may allude to a reality of possible scope creep with respect to defining what the outcome of preparedness is, and what actionable tasks should be taken to secure this outcome across and down the various levels of government. Currently, the national preparedness effort is centered on an all-hazards approach for domestic events, whether of a major or lesser variety. In HSPD-8, major events are specifically defined as “domestic terrorist attacks, major disasters, and other emergencies.”¹⁹ The directive further emphasizes that the definition of the terms “major disasters”²⁰ and “emergency”²¹ are those discussed in the *Stafford Act of 2007*.

¹⁵ See U.S. Department of Homeland Security. 2007. *National Preparedness Guidelines*, p.42.

¹⁶ See U.S. Department of Homeland Security. 2007. *National Exercise Program*, p. 6.

¹⁷ Ibid.

¹⁸ See John F. Morton. 2008. *State/Local Issue Team Solution Set Structure Working Group Project on National Security Reform*. Project on National Security Reform: State/Local Issue Team. p.13.

¹⁹ U.S. President. 2003. *Homeland Security Presidential Directive-8*, section 2, part f.

²⁰ Under the Stafford Act, a major disaster is defined as “any natural catastrophe (including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President, causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.” See *Robert T. Stafford*

At the federal level, the key planning documents of the *National Preparedness Guidelines* (prepared by DHS), the *National Response Framework* (DHS), the DHS Strategic Plan, the *National Strategy for Homeland Security* (HSC), the *National Incident Management System* (DHS), HSPD-8, and HSPD-20 ostensibly call for all-hazard planning and recognize the need for flexibility. Largely guided by presidential order, national preparedness policy has been recognized by the White House as a necessary part of homeland security.²² The thousands of pages of planning documents, hours of meetings, and mandates for preparedness action by other governmental and private sector actors are unlikely to yield advantageous results unless a culture of preparedness is soon rooted. In order to establish such a culture, preparedness guidance from the federal level outlines a vision for preparedness (the National Preparedness Vision²³), supplemented with management structures such as the *National Incident Management System*, formal training programs such as the National Exercise Program, and a listing of what tasks (the Universal Task List²⁴) must be sought across and down the various levels of government to ensure that the country is “prepared.” A Target Capabilities List is required under the *National Preparedness Guidelines*; this document provides expectations and structure for states, localities and the private sector in order to respond accordingly to a disaster. While the Department of Homeland Security is a relatively young agency, this department has coordinated itself with other agencies and actors to grow and practice a more proactive approach to addressing potential threats and hazards. However, despite efforts at coordination on what appears to be a holistic approach to addressing the issue of preparedness, the federal preparedness structure is vast, largely made up of disjunctive documents and strongly guided by executive order which can, of course, be reversed at any time with the stroke of a pen.

State Level

The states generally defined preparedness in a way that was consistent with the predominant federal definition(s). Definitional information was unavailable for the following seven states: Delaware, Hawaii, Kentucky, North Dakota, New Jersey, New York and Wyoming.

Disaster Relief and Emergency Assistance Act (P.L. 93-288), as amended, (42 U.S.C. 5121-5207). 2007. Title I, section 102.

²¹ Under the Stafford Act, an emergency is defined as “any occasion or instance for which, in the determination of the President, federal assistance is needed to supplement state and local efforts and capabilities to save lives and to protect property, public health, and safety to lessen or avert the threat of a catastrophe in any part of the United States.” See *Robert T. Stafford Disaster Relief and Emergency Assistance Act* (P.L. 93-288), as amended, (42 U.S.C. 5121-5207). 2007. Title I, section 102. In the aftermath of Hurricane Katrina, additional attention has centered on catastrophic events. A catastrophic emergency is “any incident that results in extra ordinary levels of mass casualties, damage or disruption severely affecting the U.S. population, infrastructure, environment, and economy of government functions.” See U.S. President. 2007. *Homeland Security Presidential Directive no. 20*.

²² See John F. Morton. 2008. *State/Local Issue Team Solution Set Structure Working Group Project on National Security Reform*. Project on National Security Reform: State/Local Issue Team. p.13.

²³ For a review of The National Preparedness Vision, see U.S. Department of Homeland Security. 2007. *National Preparedness Guidelines*, section 2, p. 1.

²⁴ The Universal Task List is located within the U.S. Department of Homeland Security. 2007. *National Preparedness Guidelines*, Appendix B, section 2, p. 32.

The available preparedness definitions were analyzed by both separating states by population and border classification—international gateway and interior states. International gateway states were defined as those possessing a border with Mexico or Canada, or possessing a coastline of an international waterway. In order to ascertain the level of continuity between federal and state definitions, state definitions were compared to the federal description along the following qualitative categories: the identified state definition was the same or very similar to the federal definition, similar to the federal definition but missing one or more key elements, no explicit definition but a list of organizational elements, or preparedness goals rather than implicit or explicit preparedness definition. The key elements of the federal preparedness definition that were used in the comparison were: focusing on operational capabilities, involving all actors, a range of elements from prevention to recovery, and domestic incidents. Table 1 provides summary observations of these comparisons.

Table 1: State Preparedness Definitions

Observations	Geographic Factor		Population		
	International Gateway (n=31)	Interior State (n=12)	Large (>6M) (n=15)	Medium (2 to 6M) (n=17)	Small (<2M) (n=11)
Definition replicates or very similar to HSPD-8 / NPG / NIMS	AZ, VT, VA, WI, OR (5) [16.1%]	KS, UT (2) [16.7%]	AZ, VA (2) [13.3%]	WI, KS, UT, OR (4) [23.5%]	VT (1) [9.1%]
Definition missing one or more key HSPD-8 / NPG / NIMS elements	RI, NH, AL, GA, SC, NC, LA, NM, TX, WA, MI, MT (12) [38.7%]	WV, OK, NE, SD, NV (5) [41.7%]	GA, NC, TX, WA, MI (5) [33.3%]	AL, SC, LA, OK, NV (5) [29.4%]	RI, NH, WV, NM, NE, SD, MT (7) [63.6%]
No- <i>explicit</i> definition; contains a list of policy, organizational or process needs	ME, MD, FL, IN, OH, CA, AK, ID (8) [25.8%]	IA, MO, CO (3) [25%]	FL, IN, OH, CA (4) [26.7%]	MD, IA, MO, CO (4) [23.5%]	ME, AK, ID (3) [27.3%]
No- <i>implicit</i> definition; contains a discussion of preparedness threats and/or goals	MA, MS, MN, IL, PA, CT (6) [19.4%]	TN, AR (2) [16.7%]	MA, TN, IL, PA (4) [26.7%]	MS, MN, AR, CT (4) [23.5%]	(0) [0%]

Source: Source Database, Appendix A. **Note:** Parenthetical figures represent the number of states; bracketed figures represent the percentage of states; unable to acquire preparedness definitional information for DE, HI, KY, ND, NJ, NY, WY.

When examining Table 1 by border classification, international gateway and interior state percentages are similarly proportioned across the preparedness definition categories. However, percentages vary considerably when state definitions are evaluated by population. The results show that 46.6 percent of large states, 52.9 percent of medium states and 72.7 percent of small states have at least one key element of the federal definition. Data indicates that small states (populations less than 2 million) are more likely to have preparedness definitions similar to the

federal description. This finding may imply that the small states are more likely to align with the federal definition while larger states are more inclined to define preparedness independently.

There is evidence of a line of sight between the states and the federal government. Seven states, Arizona, Kansas, Oregon, Utah, Vermont, Virginia and Wisconsin, have definitions that align with the federal definition; i.e., these definitions contain elements of operational capabilities, the inclusion of all actors, a range of elements from prevention to recovery, and the need to prepare for domestic incidents. If states that contain at least one of the elements of the federal definition in their preparedness definition are included in the analysis, 24 of the 43 states, or 55.8 percent, partially exemplify the federal definition. These states may be using the federal documents as a template for their own planning purposes. Federal funding incentives may also encourage replication of federal preparedness guidelines.

In large part, states maintained preparedness definitions in an Emergency Operation Plan (EOP), Homeland Security Strategy (HSS) or both. There are twenty-nine states from which a definition of preparedness was derived from an EOP. Sixteen distinct state definitions of preparedness were obtained from a HSS.²⁵ However, North Carolina and Nevada both maintained preparedness definitions in both their EOPs and HSSs.

Ten states identified preparedness goals and objectives that were contained in EOPs. Additionally, twenty-eight states identified preparedness goals and objectives that were contained in HSSs. Although more preparedness definitions were contained in EOPs, a majority of identified preparedness goals and objectives were drawn from HSSs. The state preparedness goals and objectives contained in HSSs generally reflect those identified by the federal document, *National Strategy for Homeland Security*. States which utilize EOPs do not address the number of goals and objectives as thoroughly as those which drew on HSSs. This finding might be partially attributed to a lack of explicit goals and objectives and may indicate the unique nature of each state which proscribes them from having goals which reflect those at the federal level.

Certain states appear to have more comprehensive EOPs and HSSs than others. These plans and strategies stood out based on their high level of detail, thoroughness, and clarity. These states had well-crafted definitions and clear preparedness goals and objectives. Four states appear to possess preparedness plans—all homeland security strategies—that could be used as models: Nebraska, Arizona, Oregon, and California.

In summary, twenty-four of forty-three states' preparedness definitions reflect elements of the federal definition. This finding suggests that a number of states are using federal direction to define preparedness.

²⁵ Due to data normalization issues, state preparedness definitional information was limited to reviewing only EOPs and HSSs.

Local Level

The local government review included two analytical comparisons of preparedness definitions. The first analysis compared the aspects of stated preparedness definitions by population among the twelve localities in our study. In conducting the population analysis, the population mean for each of the twelve localities was determined and all localities containing populations above the mean were categorized as group 1 and all those containing populations below the mean were categorized as group 2. The population mean of all twelve localities is 3,197,379. Group 1 includes Dallas/Fort Worth, Houston, Los Angeles, and New York City. Group 2 includes Atlanta, Chicago, Detroit, Newark/Jersey City, Philadelphia, San Diego, San Francisco and Washington D.C.

The second definitional comparison was conducted between Tier 1 and Tier 2 localities as defined by the U.S. Department of Homeland Security's Urban Area Security Initiative (UASI) Program. This analysis is conducted on all seven Tier 1 localities and the five highest federally funded localities within the Tier 2 classification. Tier 1 localities include Chicago, Houston, Los Angeles, Newark/Jersey City, New York City, San Francisco, and Washington D.C. Tier 2 localities include Atlanta, Dallas/Fort Worth, Detroit, Philadelphia, and San Diego.²⁶ Table 3 provides a summary of these two definitional comparisons with respect to the selected twelve localities.

At the time of the analysis, Philadelphia County did not produce a comprehensive preparedness plan. Though Philadelphia is included in the below-mean population and the Tier 2 categories, no comparative analysis on a preparedness definition or strategic goals was conducted.

In analyzing the definitions we identified specific components that were being used by the localities. These varied slightly in terms of definitional content when analyzed by population and Tier classification. These are shown below in Table 2.

²⁶ U.S. Department of Homeland Security FY 2008 Overview. Available: <http://www.dhs.gov/xlibrary/assets/grant-program-overview-fy2008.pdf>

Table 2: Locality Definitional Components

Definitional Components by Population and Tier	
<i>Group 1: Population above mean</i> Conservation of property Continuity of Government/operations Coordination Exercises/Training Minimize/limit loss Plan/Strategy development Preservation of life Public education Resolve incidents Risk assessment/awareness 10	<i>Group 2: Population below mean</i> Coordination Mitigation Plan/Strategy development Prevention Protect Critical Infrastructure Recovery Relief/Response 7
<i>Tier 1:</i> Conservation of property Continuity of government/operations Coordination Deter Exercises/Training Minimize/limit loss Mitigation Plan/Strategy development Preservation of life Prevention Public education Recovery Relief/Response Risk assessment/awareness 14	<i>Tier 2:</i> Coordination Exercises/Training Mitigation Plan/Strategy development Preservation of life Prevention Protect Critical Infrastructure Public education Recovery Relief /Response 10

Source: Source Database, Appendix A.

Analysis of Preparedness Definitions by Population Mean

Table 3 provides comparisons by commonality across analytical comparison categories—both by population and Tier. The definitions of above-mean population localities generally include coordination of preparedness efforts and the preservation of life. Additionally, the common definitions of these localities include minimizing and limiting loss as well as risk assessment and awareness. Of the ten definitional components identified among the above-mean population localities, Los Angeles identifies with nine. Houston and New York City identify with two of the ten components, whereas Dallas/Fort Worth identifies with three. New York City is the only above-mean population locality to address strategic plan development within its preparedness definition. Los Angeles is the only locality in this category to identify with the conservation of property and resolving incidents, as well as the continuity of government and operations.

Preparedness definitions of those localities with below-mean population include common components such as plan and strategy development and prevention. Additional components include mitigation, response, relief, and recovery. Of the seven definitional components identified by below-mean population localities, San Francisco and Detroit’s plans align with five.

Chicago's plan identifies with four of the definitional components, whereas San Diego aligns with three of the components present. Newark aligned with two definitional components. San Francisco is the only below-mean population locality to address the coordination of agencies within its preparedness definition. Detroit was the only locality in this category to identify the protection of critical infrastructure within its preparedness definition. Neither Atlanta nor Philadelphia, or Washington D.C. identify either explicit or implicit preparedness definitions. As a result, all three are excluded in this comparative analysis.

No repeated definitional components are reflected by both above- and below-mean population categories.

Table 3: Local Summary Definitional Comparisons by Population and Tier

Comparison Category		Definitional Components Shared by At Least Two Localities
Population	<i>Group 1: Population above mean</i> Dallas/Ft. Worth Houston Los Angeles New York City	Coordination Exercises/training Minimize/limit loss Preservation of life Public education Risk assessment/awareness
	<i>Group 2: Population below mean</i> Atlanta Chicago Detroit Newark/ Jersey City Philadelphia San Diego San Francisco Washington D.C.	Plan/strategy Recovery Relief/response Mitigation Prevention
Tiers	<i>Tier 1</i> Chicago Houston Los Angeles Newark/Jersey City New York City San Francisco Washington D.C.	Plan development Coordination Prevention Recovery Limit loss/minimize damage Preservation of life
	<i>Tier 2</i> Atlanta Dallas/Fort Worth Detroit Philadelphia San Diego	Mitigation Response Recovery

Source: Source Database, Appendix A.

Analysis of Preparedness Definitions by Tier

In analyzing preparedness definitions by Tier 1 and Tier 2 locality categories, some components are repeated. For Tier 1 localities, plan development was the only component identified by three localities. Plan development, coordination, prevention, recovery and response are addressed by two localities. Limiting loss and minimizing damage, as well as preservation of life, are also addressed by two localities. Other definitional components which are identified among Tier 1 localities are only reflected in one plan. These components include deterrence, mitigation, and conservation of property. Additionally, continuity of operations, public education, training and exercises, and risk awareness were components addressed by a single locality. Given the variety of the preparedness definition components identified, few Tier 1 localities share definitional components. Comparative analysis could not be conducted on Washington D.C. due to a lack of explicit or implicit preparedness definition.

In comparing preparedness definitions across Tier 2 localities, only three of eleven identified definitional components were repeated. These components, which were repeated by only two localities, are mitigation, response, and recovery. Components addressed by only one locality are training and exercises, coordination, public education of risk awareness, and prevention. Other preparedness definition components include protection of critical infrastructure, preservation of life, plan development, and relief. Of the repeated definitional components identified in the analysis of Tier categories, recovery was the only them which was reflected in both groups. All repeated definitional components identified by the Tier 2 localities are also included in the components addressed by the below-mean population category. However, no component is shared by all analytical categories.

Preparedness Definitions Comparative Analysis Conclusion

The definitions of preparedness being used by the federal, state and local governments do resemble each other. Identified definitions generally included activities and resources to be in place before an event and outlined plans, policies, and procedures. At the state level, there is evidence of a line of sight between the states and the federal government. More than half of the states that had information available partially followed the federal definition. At the local level, there appears to be evidence that preparedness definitions are more detailed including more specific definitional components to include activities such as exercises and training. There were some differences with these components when analyzed by population and Tier.

Preparedness Threats and Goals

The second research question seeks to identify the current national, state, and selected local preparedness goals. As part of answering this question, we identified threats to which the goals would respond, as well as the actual goals at the federal, state, and local level.

Federal Level

The *National Strategy for Homeland Security* (both 2002 and 2007 versions) and other documents identify threats and related preparedness goals. In reviewing current homeland security preparedness documents—federal, state, and local—we identified the following major categories of preparedness threats: terrorism, natural disasters, technological/man-made accidents, pandemic flu/epidemics and weapons of mass destruction. Where possible, we also identified sub-categories, such as hurricanes, tornadoes, and other natural disaster threats. Most of these threats are consistently mentioned in the homeland security presidential directives, guidelines, national strategies, and strategic plans. These major and sub-categories are shown in Appendix A. Where a sub-category was mentioned by an entity, we so noted; in other cases only a major category was mentioned.

For preparedness goal categorization at the state and local level in Appendix A, we used the 2007 *National Strategy for Homeland Security* and its four broad goals:

1. Prevent and disrupt terrorist attacks
2. Protect the American people, critical infrastructure, and key resources
3. Respond to and recover from incidents that do occur
4. Continue to strengthen the foundation to ensure long-term success.²⁷

In general, these threats and goals have been consistent over the past several years and are reflected in federal policy and doctrine and plans. For example, the latest DHS strategic plan goals²⁸ are very consistent with those discussed in the *National Strategy for Homeland Security*²⁹.

State Level

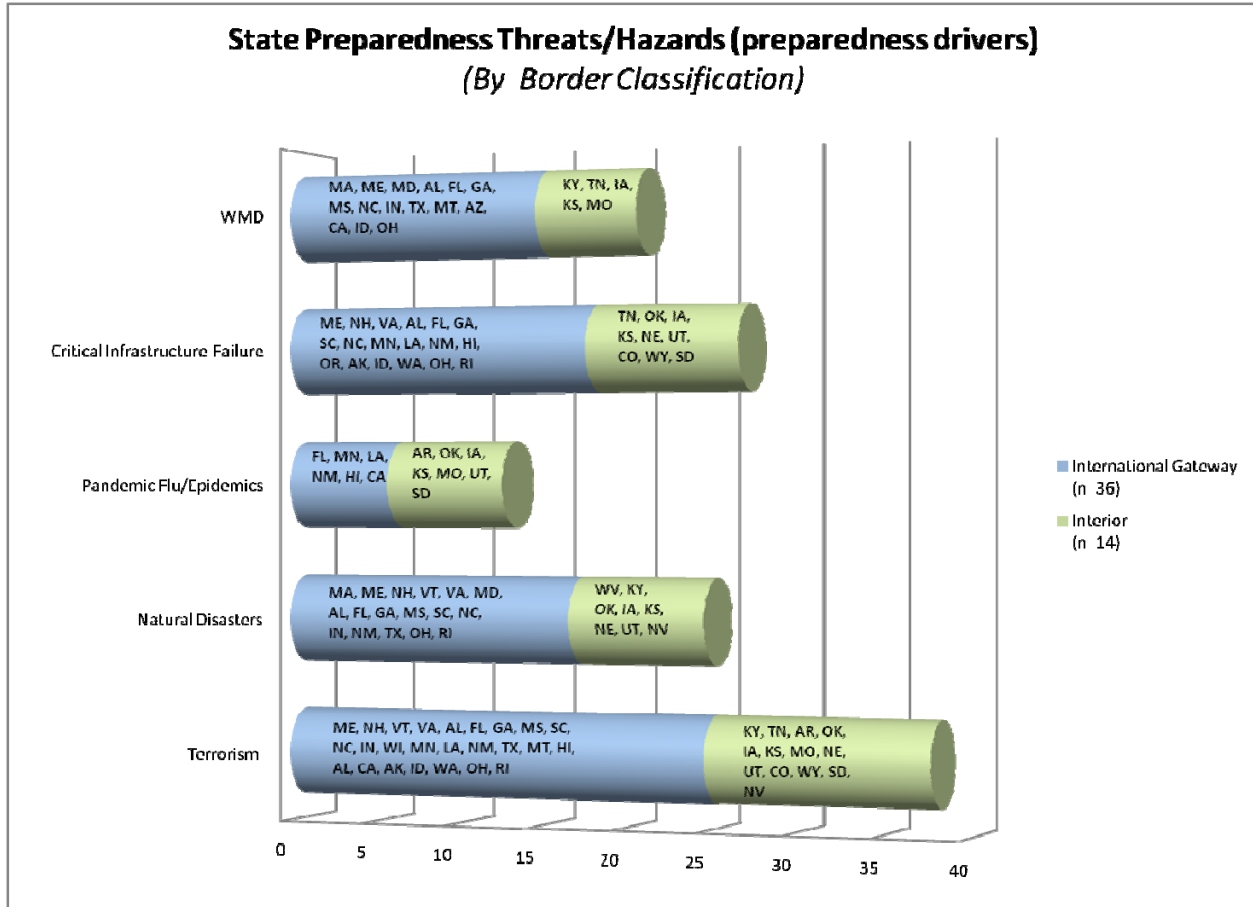
In order to examine the states' threats, Homeland Security Strategies (HSSs), Emergency Operations Plans (EOPs) and/or Hazard Mitigation Plans (HMPs) were subjected to comparative analysis. Goals/objective analysis and threats/hazards analysis was conducted along the categories of border classification and population. Complete information on threats could not be acquired for eight states: Illinois, Pennsylvania, Michigan, North Dakota, New York, New Jersey, Delaware and Connecticut. The primary threats mentioned above for the federal level which include terrorism, natural disasters, critical infrastructure failure, pandemic flu/epidemics, and weapons of mass destruction, were also used to analyze the state preparedness material. Specific threats are provided in Appendix A. Figures 1 and 2, on the following pages, provide summary observations on the state threat comparisons.

²⁷ Taken from, U.S. Homeland Security Council. 2007. *National Strategy for Homeland Security*., p. 15-40.

²⁸ For a review of the preparedness goals contained within the latest DHS strategic planning document consult, U.S. Department of Homeland Security. 2008-2013. *One Team, One Mission, Securing Our Homeland*, part VI.

²⁹ For a review of the preparedness goals contained within the latest Homeland Security Strategy see, U.S. Homeland Security Council. 2007. *National Strategy for Homeland Security*, p. 15-40.

Figure 1: State Preparedness Threats/Hazards (By Border Classification)



Source: Source Database, Appendix A

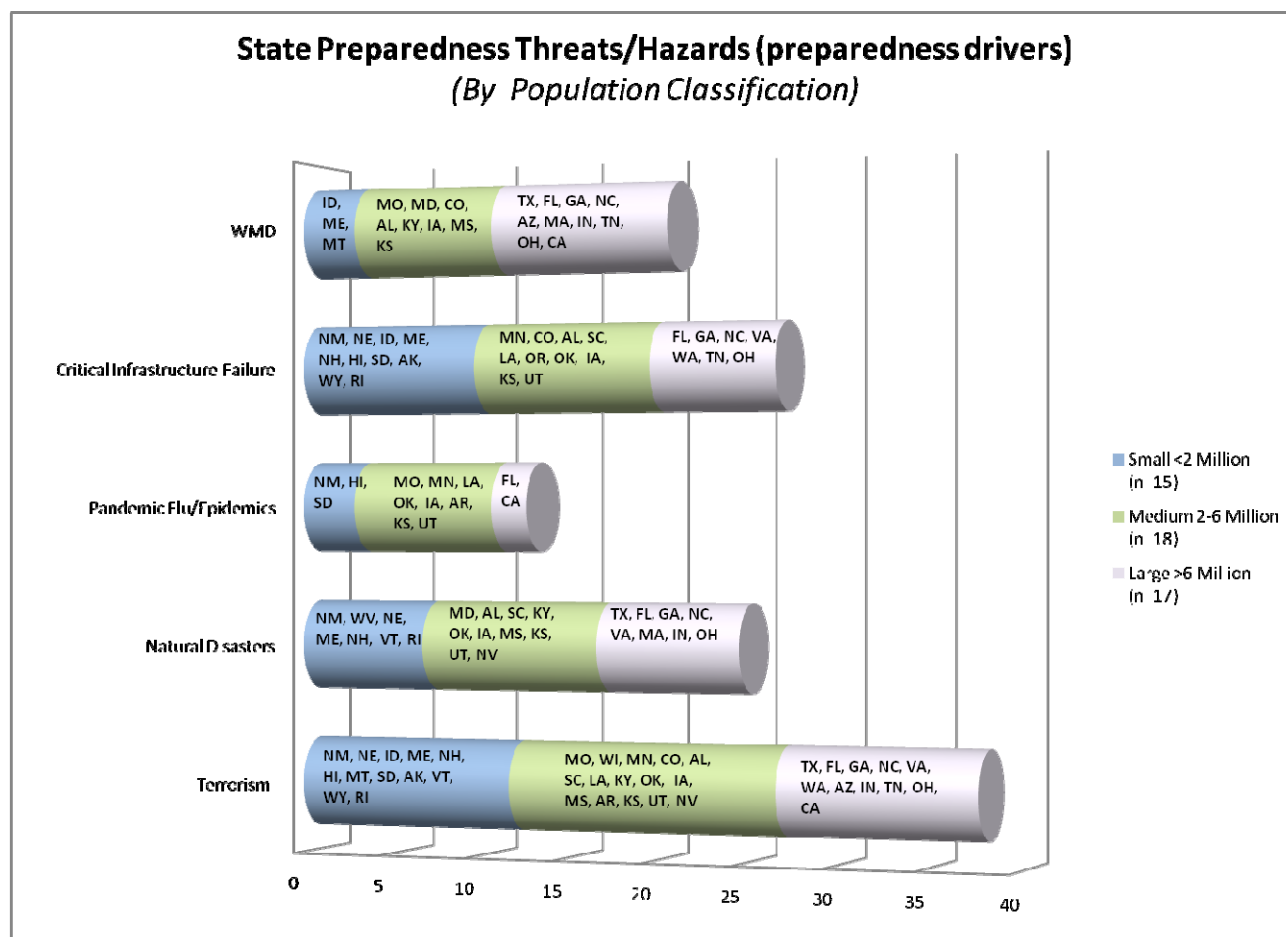
Notes: The X-axis represents a physical count of the number of states listing said threat/hazard in either their EOP, Homeland Security Strategy or Hazard Mitigation Plan or some combination thereof. The five threat categories listed above are collapsed analytical groupings for display purposes.

Analysis reveals that international gateway states identify threats of terrorism and WMD more so than the interior states. Of the thirty-six international gateway states, twenty-five address terrorism as a threat and explicitly include terrorism goals in their documentation. Fifteen of the thirty-six specify WMD as a threat.

An analysis of states' threats and hazards were also categorically separated by population. Figure 2, on the following page illustrates state preparedness by population. States with higher populations were more likely to include terrorism as a threat. However, the 15 states with the highest population are also international gateway states, revealing a parallel relationship. The governments of states serving as population hubs and international gateway states seem to realize they may be more likely to be seen as targets and have planned accordingly. International gateway states, regardless of size, tend to focus more on man-made threats, whether in the form

of terrorism or weapons of mass destruction. Small and medium sized states are more prone to worry about non-manmade hazards such as critical infrastructure failure, natural disasters, and pandemic flu/epidemics. Medium-sized states as a whole tend to have a more even distribution between manmade and non-manmade threats. However, the most important factor in determining a state's threat focus seems to be whether it is an international gateway or not.

Figure 2: State Preparedness Threats/Hazards (By Population Classification)



Source: Source Database, Appendix A

Notes: The x-axis represents a physical count of the number of states listing said threat/hazard in either their EOP, HSS or Hazard Mitigation Plan or some combination thereof. The five threat categories listed above are collapsed analytical groupings for display purposes.

Goals

Each state's EOPs and HSSs were examined for any resemblance to federally outlined goals and objectives. Goals and objectives were not readily accessible for twelve states. These states include: New Jersey, New York, Delaware, Pennsylvania, Michigan, North Dakota, Hawai'i, Idaho, Kentucky, Utah, Wyoming, and South Dakota.

Goal analysis was conducted by border classification and by population. States were analyzed based on the inclusion of: (1) goal(s)/objective(s) coverage similar to federal goal(s)/objective(s), (2) goal(s)/objective(s) coverage is missing one or more of federal goal(s)/objective(s), (3) goal(s)/objective(s) coverage include federal goal(s)/objective(s) and also jurisdictional specific coverage, and (4) no goal/objective information could be obtained. The findings are summarized in Table 4 below.

Table 4: State Preparedness Goal(s) and Objective(s)

Observations Preparedness Goal(s) and Objective(s)	Geographic Factor		Population		
	International Gateway (n=36) (28/36 w/information)	Interior State (n=14) (10/14 w/information)	Large (>6M) (n=17) (13/17 w/information)	Medium (2 to 6M) (n=18) (16/18 w/information)	Small (<2M) (n=15) (9/15 w/information)
Goal(s) / objective(s) coverage similar to NSHS goals, action and/or their descriptions	NC, OH (2) [5.6%]	TN, CO, WV (3) [21.4%]	OH, NC, TN (3) [17.6%]	CO (1) [5.6%]	WV (1) [6.7%]
Goal(s) / objective(s) missing one or more NSHS goals / elements	RI, MA, ME, VA, MD, MS, SC, IN, MN, TX, AZ, OR, AK, IL, NH, CT, WI, AL (18) [50%]	AR, IA, KS, NV (4) [28.6%]	TX, VA, AZ, MA, IN, IL (6) [35.3 %]	MD, MN, SC, OR, IA, AR, MS, KS, CT, WI, AL, NV (12) [66.7%]	ME, RI, AK, NH (4) [26.7%]
Goal(s) / Objective(s) include NSHS goals / elements + <i>jurisdictional specific coverage</i>	FL, CA, VT, LA, WA, GA, MT, NM (8) [22.2%]	MO, NE, OK (3) [21.4%]	CA, FL, WA, GA (4) [23.5%]	MO, LA, OK (3) [16.7%]	NE, VT, MT, NM (4) [26.7%]
No presented goal(s) / objective(s) from EOPs and or Homeland Security Strategies	NJ, NY, DE, PA, MI, ND, HI, ID (8) [22.2%]	KY, UT, WY, SD (4) [28.6%]	NY, PA, MI, NJ (4) [23.5%]	KY, UT (2) [11.1%]	ID, HI, DE, SD, ND, WY (6) [40%]

Source: Source Database, Appendix A; parenthetical figures represent the number of states; bracketed figures represent the percentage of states.

Evaluations of goal(s)/objective(s) reveal a difference between the two border classification analytical categories of international gateway and interior state. The percentage of states which reflect national goal(s)/objective(s) was higher for interior states while the international gateway states were more likely to be missing one or more national goal(s)/objective(s). Among interior states, only four were missing one or more national goal(s)/objective(s).

State goal(s)/objective(s) were also analyzed by population. States with populations greater than six million people were categorized as large, and were more likely to resemble national goal(s)/objective(s). States with populations between two and six million people were categorized as medium. Among these states, twelve were missing one or more national goal(s)/objective(s); these states accounted for 66.7 percent of the states with medium-sized populations. States with populations of less than two million people were categorized as small. Information for these states was not readily accessible for six small states, which represents 40 percent of states categorized as having small populations. Comparative analysis revealed that all states have at least one goal/objective that matches the goal(s)/objective(s) defined by the federal government. A majority of states are aligned with the national goal(s)/objective(s) of preparedness, prevention, mitigation, response, and recovery. Each state's goal(s)/objective(s) varied based on the specific threats and hazards that each state identified.

Local Level

In comparing threats across local governments, locality similarities and differences were analyzed by population and Tier. Table 5, on the following page, provides a summary of the following locality threat comparison information.

Table 5: Local Summary Comparisons: Threats

Comparison Category		Observations
Population	<i>Group 1: Population above mean</i> Dallas/Ft. Worth Houston Los Angeles New York City	Shared threats (all 4 localities): Biological Weapons Blizzard/Ice Chemical Weapons Chemical/Hazardous Materials Flood Heat Natural Disasters Nuclear Weapons Pandemic Flu/Epidemic Radiological Weapons Terrorism Tornado Shared threats by less than 4 localities: Wildfires
	<i>Group 2: Population below mean</i> Atlanta Chicago Detroit Newark/Jersey City Philadelphia San Diego San Francisco Washington, D.C.	No shared threat among the 8 localities. Shared threats by less than 8 localities: Biological Weapons Chemical Weapons Chemical/Hazardous Materials Critical Infrastructure Failure Earthquakes Environmental Hazards Flood Heat Natural Disasters

Comparison Category		Observations
		Nuclear Weapons Radiological Weapons Terrorism
Tiers	<i>Tier 1</i> Chicago Houston Los Angeles Newark/ Jersey City New York City San Francisco Washington D.C.	Shared threats (all 7 localities): Biological Weapons Chemical Weapons Chemical/Hazardous Materials Natural Disasters Radiological Weapons Terrorism Shared threats by less than 7 localities: Blizzard/Ice Storm Critical Infrastructure Failure Earthquakes Environmental Hazards Flood Heat Nuclear Weapons Pandemic Flu/Epidemic Tornadoes
	<i>Tier 2</i> Atlanta Dallas/Fort Worth Detroit Philadelphia San Diego	No shared threat among the 5 localities. Shared threats by less than 5 localities: Biological Weapons Chemical Weapons Chemical/Hazardous Materials Critical Infrastructure Failure Flood Heat Natural Disasters Nuclear Weapons Radiological Weapons Terrorism WMD

Source: *Source Database, Appendix A.*

Analysis of Preparedness Threats and Goals by Population Mean

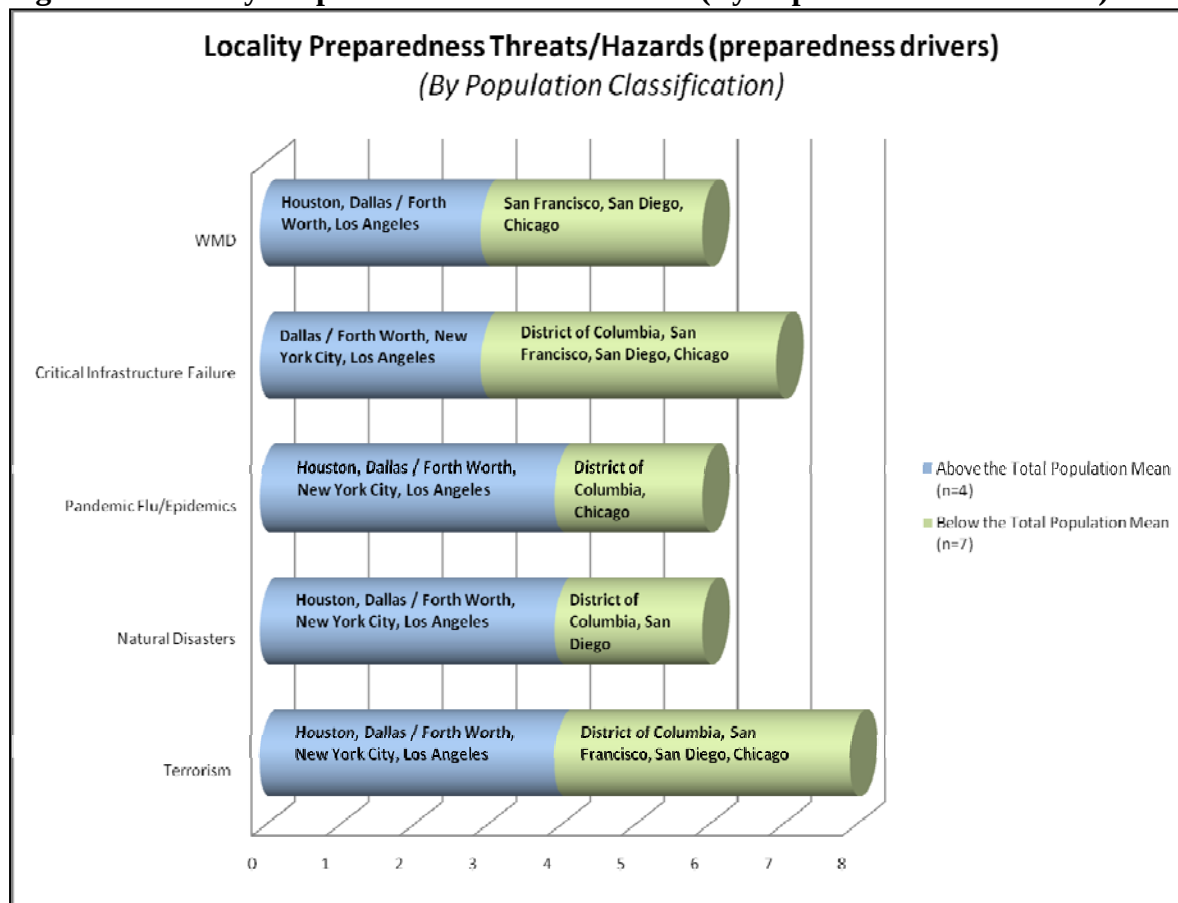
The localities containing populations greater than the sample mean are Dallas/Fort Worth, Houston, Los Angeles, and New York City. For these localities, twelve shared threats are identified. These threats include: biological weapons, blizzard/ice, chemical weapons, chemical/hazardous materials, flood, heat, natural disasters, nuclear weapons, pandemic flu/epidemic, radiological weapons, terrorism, and tornadoes. A common threat shared among three localities, Houston, Los Angeles, and New York is wildfires. The four localities grouped in the above-mean population category (group 1) address a majority of total threats identified.³⁰

The localities containing populations less than the sample mean are Atlanta, Chicago, Detroit, Newark/Jersey City, San Diego, San Francisco, Philadelphia, and Washington D.C. No localities

³⁰ Consult the *Source Database, Appendix A* for all facts contained within this paragraph.

within this category share each identified threat. The common threats among the seven localities include: biological weapons, chemical weapons, chemical/hazardous materials, critical infrastructure failure, earthquakes, environmental hazards, flood, heat, natural disasters, nuclear weapons, radiological weapons, and terrorism. No drought or agriculture threats were identified by any of the below-mean localities. Philadelphia, Newark/Jersey City and Detroit did not identify any threats within their localities. Atlanta only identified chemical/hazardous materials as a threat to the locality. The below-mean population localities do not have a consistent set of shared threats, providing a variety of preparedness threats.³¹ Figure 3 displays locality preparedness by population.

Figure 3: Locality Preparedness Threats/Hazards (By Population Classification)



Source: Source Database, Appendix A; **Notes:** The mean for all twelve localities is 3,336,035; the X-axis represents a physical count of the number of localities formally declaring said threat/hazard in either a planning document or public website.

Goals

Comparing preparedness goals by above-mean population localities (group 1), Dallas/Fort Worth, Houston, Los Angeles, and New York City, no common preparedness goal was

³¹ Consult the Source Database, Appendix A for all facts contained within this paragraph.

identified. The common goals for the above-mean localities include community and government coordination and response, hazard mitigation, public information of evacuation plans and possible threats, and to protect critical infrastructure. Compliance with state and federal preparedness plans was a goal mentioned in the San Diego and Dallas/Fort Worth preparedness plans.³²

Comparison among preparedness goals identified by the eight below-mean population localities, Atlanta, Chicago, Detroit, Newark/Jersey City, San Diego, San Francisco, Philadelphia, and Washington D.C., revealed many inconsistencies. There was not one common goal found among all of the eight localities. In six of eight below mean population localities, preparedness training and/or public preparedness information is listed as a top goal. Common goals include hazard mitigation efforts, response and/or recovery capabilities, preparedness planning, and coordination and communication efforts among agencies. Philadelphia and Newark/Jersey City did not provide preparedness goals to analyze due to lack of a comprehensive preparedness plan.³³

Analysis of Preparedness Threats and Goals by Tier

The localities in Tier 1 are Chicago, Houston, Los Angeles, Newark/Jersey City, New York City, San Francisco, and Washington D.C. The threats that were shared among the Tier 1 localities include: biological weapons, chemical weapons, chemical/hazardous materials, natural disasters, radiological weapons, and terrorism. Other threats found among Tier 1 localities include: blizzard/ice storm, critical infrastructure failure, earthquakes, environmental hazards, flood, heat, nuclear weapons, pandemic flu/epidemic, and tornadoes. Threat and goal information could not be obtained from Newark/Jersey City due to lack of a clear set of goals and objectives in the available documents.³⁴

The localities in Tier 2 are Atlanta, Dallas/Fort Worth, Detroit, Philadelphia, and San Diego. There was not a common threat that all 5 localities identified. The only threat shared by Atlanta, Dallas/Fort Worth, and San Diego, is chemical/hazardous materials. Other threats identified in Tier 2 localities include: biological weapons, chemical weapons, chemical/hazardous materials, critical infrastructure failure, flood, heat, natural disasters, nuclear weapons, radiological weapons, terrorism, and WMD. Philadelphia did not identify any threats or goals due to a lack of comprehensive preparedness plan. Chemical/hazardous materials were the only threat that Atlanta identified. Figure 4, on the following page, groups threats and hazards into five primary categories. The localities which identify those threat/hazard groupings are displayed according to Tier classification.³⁵

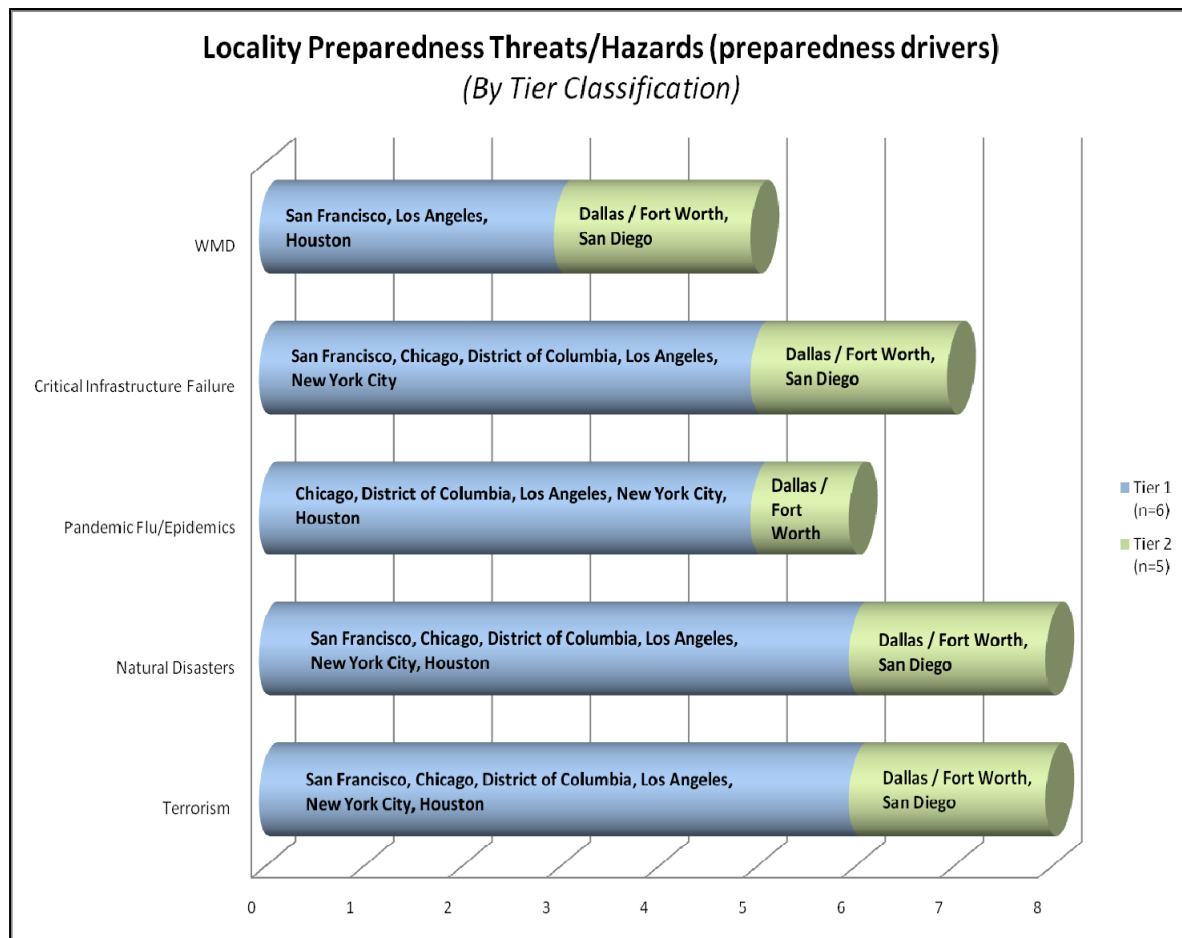
³² Consult the *Source Database, Appendix A* for all facts contained within this paragraph.

³³ Consult the *Source Database, Appendix A* for all facts contained within this paragraph.

³⁴ Consult the *Source Database, Appendix A* for all facts contained within this paragraph.

³⁵ Consult the *Source Database, Appendix A* for all facts contained within this paragraph.

Figure 4: Locality Preparedness Threats/Hazards (By Tier Classification)



Source: Source Database, Appendix A; **Notes:** The X-axis represents a physical count of the number of localities formally declaring said threat/hazard in either a planning document or public website.

Goals

Comparative analysis of goals across local governments categorized by tiers revealed no shared strategic goal. The common strategic goals shared among many Tier 1 localities included training and exercise programs, mitigation practices, increasing response capabilities, and increasing coordination efforts. Of the Tier 1 localities, only San Francisco included compliance with state and federal preparedness plans. Common goals across the Tier 2 localities included awareness, training and planning, emergency communications, and mitigation efforts. Dallas and San Diego are the only localities which included compliance with state and federal preparedness plans.³⁶

Comparative analysis of threats and goals among the localities revealed inconsistencies. Although all repeated threats addressed by Tier 1 localities are reflected in the Tier 2 analytical

³⁶ Consult the Source Database, Appendix A for all facts contained within this paragraph.

sampling, only nine of the repeated threats observed in above-mean population localities are addressed by the below-mean population localities as well.

Literature Review

In an attempt to gain a further understanding of what preparedness is, what it means and what it is or should be composed of, we gathered material from academic journals, think tanks, CRS, and the GAO addressing the topic(s) of national preparedness. As expected, these sources provided varying perspectives on the definition of preparedness and its content.

Academia

Academic literature in the field of homeland security and preparedness since 2001 has sought to define what preparedness means at the federal, state, and local levels, as well as in the private sector. In general, the literature has supported an *all-hazards* approach to preparedness. As new information and threats have emerged, preparedness priorities discussed in the literature have evolved in defining threats, policy and operational issues and management approaches. For example, the focus has shifted from fearing more traditional forms of terrorism in the aftermath of the September 11, 2001 terrorist attacks to fearing new forms of terrorism such as bioterrorism and agro-terrorism. An increasing number of academic journals in the fields of medicine, health, and public policy have published articles on the threat of bioterrorism and biohazards. Disasters, whether a spread of Avian Flu or a chemical attack through anthrax or a poisoning of water or food, are expected as potential threats and are considered more a matter of “when” than “if.” These articles have focused on what governments, from national to local, but particularly local public health agencies, should do to prevent an emergency and what should happen during a crisis.

Within the literature, authors espouse that preparedness is and should be defined with competing foci at different levels of government, and public and nonprofit jurisdictions if all levels are focused on an *all-hazards* policy. Articles on local and community groups define preparedness as the ability to respond to natural disasters such as earthquakes, hurricanes, floods, tornados, as well as communicating and working with federal and state levels of government before, during and after a disaster occurs. Federal policy tends to focus more on terrorism, from the threat of mass casualty terrorism that includes biological and chemical weapons use and agro-terrorism. Focus is also placed on the prevention of the spread of biological diseases, including the Avian Flu and other potential pandemics. Academics have also found that homeland security and preparedness strategies often focus on terrorism.³⁷

A theme throughout the academic literature is the inherently local nature of homeland security and preparedness; many articles focus on the need to develop preparedness measures at the

³⁷ Samuel H. Clovis, Jr. 2008. “Promises Unfulfilled: The Sub-Optimization of Homeland Security Preparedness.” *Homeland Security Affairs*, 4: p. 1.

grassroots level.³⁸ Academia has recognized the criticality of strengthening state and local response efforts and increasing collaboration at all levels of government.³⁹ When failures occur in enacting plans, poor communication is often blamed; academics often advocate for increased bottom-up communication, better networking between local, state, and federal levels, and increased horizontal level communication at each stage of government.⁴⁰ Academia also stresses the importance of defining the roles of all stakeholders as a critical element of preparedness, and has recommended that DHS implement an annual census to determine an organization's preparedness.⁴¹ Another issue prominent in academic literature is the involvement of private sector organizations in preparedness efforts, including ways the federal government can encourage private sector preparedness, such as through the establishment of statutes and award programs.⁴²

Articles on local health organizations have stressed the importance of communication between the federal and local levels about public health issues. Local public health officials are the first responders in the case of the breakout of any diseases or illnesses. Bottom up as well as top down communication will aid in better flow of information, a problem that has been part of past errors in responding to other disasters.⁴³ Public policy and medical journals highlight the increased importance of operational and training procedures to ensure fully trained staff because they are the first to respond to disasters. According to these sources, a key priority should be an increase in collaborations, building relationships and establishing dialogues on reactive plans between local public health authorities.⁴⁴ The literature also focuses on the increase in the work of local organizations and volunteer groups. Local organizations and volunteer groups represent an emphasis on personal citizen preparedness and a bottom-up approach to disaster recovery. One example of such a group is the Citizen/Community Emergency Response Teams (CERT) in disaster management, which first began in 1985 in Los Angeles.⁴⁵

Think Tanks

Preparedness efforts have been evaluated by think tanks as well, specifically the Heritage Foundation and the RAND Corporation. The Heritage Foundation has defined preparedness

³⁸ Susan Clarke, et al. 2006. "The Politics of Vulnerability: Constructing Local Performance Regimes for Homeland Security." *Review of Policy Research* 23: p. 95.

³⁹ Donald Kettl. 2002. "Promoting State and Local Government Performance for Homeland Security." *The Century Foundation on Homeland Security*, p. 11.

⁴⁰ Wendy A. Schafer, et al. 2008. "Emergency Management Planning as Collaborative Community Work." *Journal of Homeland Security and Emergency Management* 5: p. 5.

⁴¹ Paul Light. 2008. "Predicting Organizational Crisis Readiness: Perspectives and Practices toward a Pathway to Preparedness." *New York University Center for Catastrophe Preparedness and Response* p. 56.

⁴² Light, 57.

⁴³ Dag K.J.E. von Lubitz, et al. 2008. "Disaster Management: The Structure, Function, and Significance of Network-Centric Operations." *Journal of Homeland Security and Emergency Management* 5: p. 15.

⁴⁴ Idem.

⁴⁵ Arnauld Nicogossian, et al. 2007. "Community Training in Bioterror Response." *Journal of Homeland Security and Emergency Management* 4: p. 8.

using an all-hazards approach.⁴⁶ They have also stressed the importance of preparedness at the local level, since local responders will be the first ones to respond to a disaster.⁴⁷ The Heritage Foundation has recommended that preparedness be guided by examining the most critical assets, threat assessments, and resources that can be used to protect those assets.⁴⁸ Additionally, the Heritage Foundation has also recommended that states should use the *Target Capabilities List* to identify potential risks and the resources available to protect and maintain capabilities.⁴⁹ Overall, the Heritage Foundation has focused on citizen involvement and effective resource allocation as being the most critical elements of an effective preparedness plan.

The RAND Corporation has focused its preparedness work on measuring preparedness. In this work, RAND has defined preparedness using an all-hazards approach.⁵⁰ However, RAND has argued that this definition cannot only include the existence of plans and resources to respond to major events, but that preparedness efforts must be *reliable*.⁵¹ In order for the nation to be prepared, there must be a reasonable level of confidence that plans and procedures put into place will function effectively during an emergency. RAND recommends that preparedness efforts be evaluated using “response reliability,” which involves postulating what elements of a plan may not function during an emergency and what the impact of that failure would be on response efforts.⁵² These assessments can determine more accurately whether a plan will function effectively in an emergency, and if something goes wrong, what other courses of action can be taken.⁵³ Although think tanks have provided several valuable recommendations, there is still room for further research and analysis in this area.

Congressional Research

The GAO and CRS have both examined preparedness capabilities. The GAO has viewed preparedness as an all-hazards endeavor.⁵⁴ The GAO has found that DHS has taken steps to establish a preparedness strategy through documents such as the *National Response Framework*.⁵⁵ However, echoing the sentiments contained within the academic literature, the GAO has recommended that the federal government clearly define the roles of federal, state, and

⁴⁶ U.S. Congress. House of Representatives. Committee on Government Reform. 2005. “Improving the National Response to Catastrophic Disaster.” James Carafano, *109th Congress*. p. 4.

⁴⁷ Ibid, p. 8.

⁴⁸ David Heyman and James Jay Carafano. 2008. “Homeland Security 3.0: Building a National Enterprise to Keep America Safe, Free, and Prosperous.” *The Heritage Foundation* p. 7.

⁴⁹ Idem.

⁵⁰ Brian A. Jackson. 2008. “The Problem of Measuring Emergency Preparedness: The Need for Assessing ‘Response Reliability’ as Part of Homeland Security Planning.” *RAND Corporation* p. 7-8.

⁵¹ Idem.

⁵² Ibid, p. 12.

⁵³ Idem.

⁵⁴ Randall A. Yim. 2002. “National Preparedness: Integration of Federal, State, Local, and Private Sector Efforts Is Critical to an Effective National Strategy for Homeland Security.” U.S. *Government Accountability Office*. GAO-02-621T p. 4-5.

⁵⁵ William O. Jenkins. 2008. “Emergency Management: Observations on DHS’s Preparedness for Catastrophic Disasters.” U.S. *Government Accountability Office*. GAO-08-868T p. 3-4.

local governments, as well as the private sector.⁵⁶ According to the GAO, without a clear definition of the roles of all parties involved, it will be impossible to achieve an effective national preparedness strategy.⁵⁷ Additionally, the GAO has found that there is still significant work to be done regarding communication and coordination between DHS and its partners, which is a critical element of preventing, responding to, and recovering from emergencies.⁵⁸ The GAO has also recommended that DHS measure their preparedness using the *Target Capabilities List*, which is a critical element of determining whether preparedness plans are in place for various assets.⁵⁹

CRS has also evaluated preparedness efforts. These evaluations have defined preparedness as resources available to those affected by an incident.⁶⁰ These incidents are defined using an *all-hazards* approach, which includes both natural disasters and man-made incidents.⁶¹ When evaluating preparedness for public health crises, CRS has defined preparedness as focusing on responding to major incidents and including the state and locals levels as well as the private sector in that response.⁶² In evaluating state and local preparedness, CRS recommended that Congress consider implementing a national Incident Command System (ICS), which was recommended by the 9/11 Commission, to coordinate response efforts between federal, state, and local authorities.⁶³ CRS also identified the inherent risks in increasing the federal government's role in state and local preparedness, such as increasing obligations for state and local governments and affecting states' constitutional protections.⁶⁴

In summary, government agencies, think tanks, and academics all agree that an effective national preparedness strategy is critical to the safety and security of the United States. All of these entities also agree that preparedness should encompass an *all-hazards* approach. However, these parties have also focused on different areas of preparedness. There are discrepancies between these parties as to which areas of preparedness DHS should focus its resources. Despite these discrepancies, prominent agreed upon themes within academia, think tank and governmental research decree that DHS must define the roles of all stakeholders and that preparedness must begin at the local level. Furthermore, preparedness must also include greater communication and coordination between federal, state, and local governments. Another common theme highlights

⁵⁶ Yim, p. 9-10.

⁵⁷ "National Response Framework: FEMA Needs Policies and Procedures to Better Integrate Non-Federal Stakeholders in the Revision Process." 2008. *U.S. Government Accountability Office*. GAO-08-768 p. 27-28.

⁵⁸ William O. Jenkins. 2008. "Emergency Management: Observations on DHS's Preparedness for Catastrophic Disasters." *U.S. Government Accountability Office*. GAO-08-868T p. 4.

⁵⁹ *Ibid*.

⁶⁰ R. Eric Petersen, et al. 2008. "Homeland Emergency Preparedness and the National Exercise Program: Background, Policy Implications, and Issues for Congress." Congressional Research Service, RL34737.

⁶¹ *Idem*.

⁶² Sarah A. Lister. 2008. "Public Health and Medical Preparedness and Response: Issues in the 110th Congress." Congressional Research Service, RS22602. p. 3.

⁶³ Keith Bea. 2006. "Emergency Management Preparedness Standards: Overview and Options for Congress." Congressional Research Service, RL32520 p. 17-18.

⁶⁴ *Ibid*, p. 25-28.

the recommendation that DHS use the Target Capabilities List to guide preparedness efforts. Overall, throughout the literature it is clear that while progress has been made in establishing preparedness efforts, there is still much work to be done.

Summary of Key Findings

Since September 11, 2001, a great deal of work has been done in regards to defining preparedness and outlining related plans, policies, operations, capabilities and tasks, and perhaps even more work has been done outside the government researching and evaluating said governmental efforts. Our central findings are:

States

Twenty-four of the forty-three states, or 55.8 percent, for which definitional information was available partially exemplify the federal definition by containing one or more of the key elements of the federal definition. Seven of the forty-three states (Arizona, Kansas, Oregon, Utah, Vermont, Virginia and Wisconsin) have definitions that contain all four of the key elements of the federal definition.

There is little difference in the preparedness definitions between international gateway and interior states. By population, small states (populations less than 2 million) were more likely to have key elements of the federal definition. No other definitional differences were apparent when analyzed by population.

International gateway states identify threats of terrorism and WMD more so than the interior states. Small and medium states are more prone to worry about non-manmade hazards such as critical infrastructure failure, natural disasters, and pandemic flu/epidemics. Medium size states, as a whole, tend to have a more even distribution between manmade and non-manmade threats.

States with populations greater than six million people were categorized as large, and were more likely to resemble national goal(s)/objective(s). There appears to be no other differences based upon population or border status but when combined those states that are both large in population and an international gateway tend to possess goals that are in line with national goals.

Localities

No repeated definitional components are reflected by both above- and below-mean population categories. The definitions of above-mean population localities generally include coordination of preparedness efforts and the preservation of life. The common definitions of these localities include minimizing and limiting loss as well as risk assessment and awareness. Preparedness definitions of those localities with below-mean population include common components such as plan and strategy development and prevention. No definitional component is shared by all analytical categories.

No shared threat among Tier 2 localities. The four localities grouped in the above-mean population category were more likely to address a majority of the threats identified. The below-mean population localities do not have a consistent set of shared threats.

There was not one common goal found among all of the eight below-mean localities. Compliance with state and federal preparedness plans was a goal mentioned in only the San Diego and Dallas/Fort Worth preparedness plans.

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